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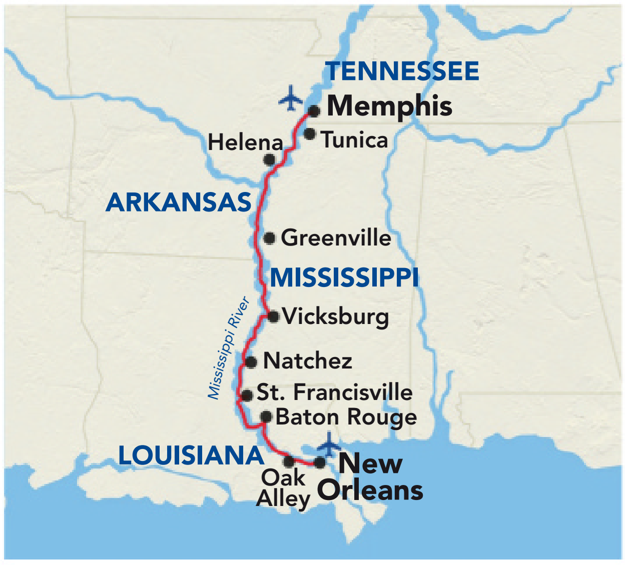
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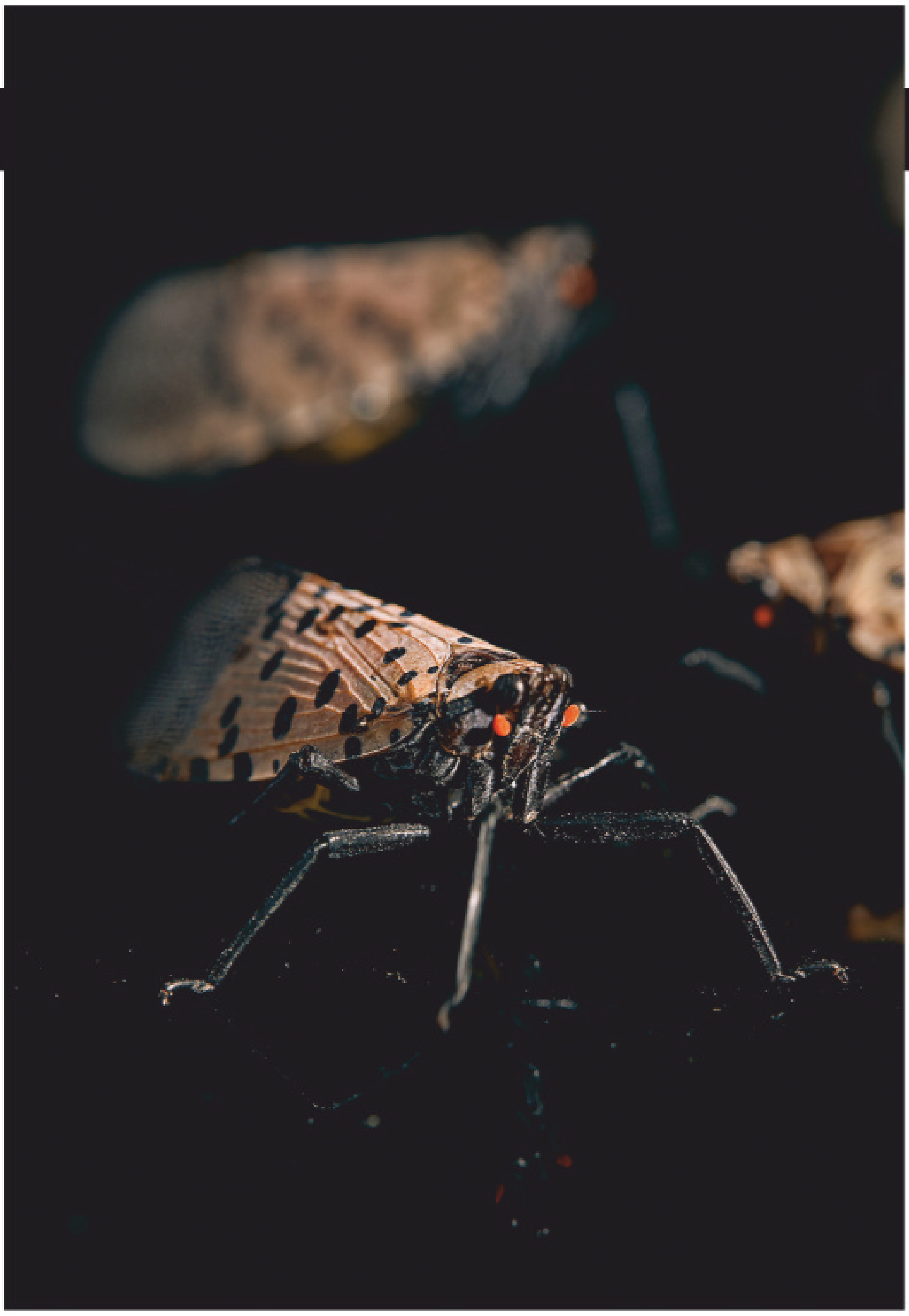

Spotted lanternflies, in a quarantine cage at Penn State, where researchers are seeking clues to their vulnerability.

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COVER: LES FRÈRES CHUZEVILLE / RMN- GRAND PALAIS / ART RESOURCE, NY; JOSEPH MALLORD WILLIAM TURNER 1775-1851, THOMAS GIRTIN 1775-1802, *FROM ALBUM OF COPIES ITALIAN VIEWS FOR DR. THOMAS MONRO, ROME: THE DOMUS AUREA*; DIGITAL PHOTOGRAPH: PHOTO ©TATE; FLOOR PLAN: 5W INFOGRAPHICS, REFERENCE: GREATBUILINGS.COM; THIS PAGE: MARC MCANDREWS; NASA (DETAIL)

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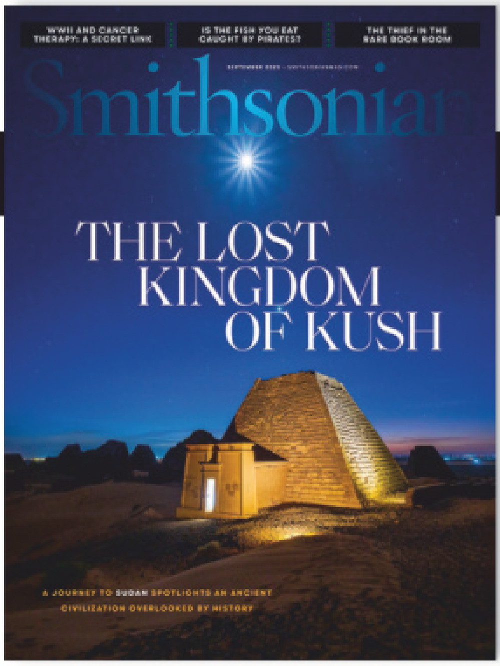
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"What a tribute to human courage, compassion, curiosity and resilience!"

Sudan's Priceless Past

During the years my wife and I spent in Africa since the 1980s, Sudan ("In the Land of Kush," September 2020) was always in some phase of turmoil and it never came up on the travel radar when stacked against the usual Kenya, Tanzania and South Africa destinations. Your article goes back 3,500 years to cover the amazing sites to see and experience in person now that the government has stabilized and internal travel is safer. It's a wonderfully told history and includes remarkable photographs of the archaeological sites.

— **Richard Sim** | Falls Church, Virginia

Looted Library

It is absolute insanity that the culprits in "The History Thief" did not get heftier sentences. Over $8 million in stolen and fenced artifacts—house arrest and probation is not punishment enough. They should be serving serious time in prison. They stole cultural history, not gum from the store. As a library worker who works with a closed collection, I am absolutely appalled at this lack of appropriate response from the judicial system and these men's absolute disregard for the importance of the materials they had the privilege to oversee. How is this justice?

— **Monica Alston** | Facebook

I bought from Caliban Books often before learning about this case. It was my favorite twisty, winding, floor-to-ceiling Pittsburgh bookstore. Breaks my heart that I will never shop there again.

— **Brianna Karp Sokol** | Pittsburgh

Chemical Warfare

The article about Lt. Col. Stewart Alexander, by Jennet Conant ("The Bombing and the Breakthrough"), was a wonderful story of what can happen when ability, integrity and the commitment to doing the next right thing come together: to do what one can and should, not just what one must. What a legacy he left!

— **Robert Ljungquist** | Goshen, Connecticut

Ancestral Atrocities

Thank you for "Daring to Face the Past," by Ann Banks, whose ancestor owned human beings, and her journey with Karen Orozco Gutierrez, whose ancestor was owned by Ms. Banks' ancestor. What a tribute to human courage, compassion, curiosity and resilience! May we all be so open to our own truth, and our responsibility to do better.

— **Sally Iberg** | Evanston, Illinois

Foiling Pirates

"Chasing the Pirates" presents a problem the entire world needs to address. First-world consumers have to support sustainable fishing to provide poor nations with a way to maintain a lifestyle that keeps them from having to turn to piracy.

— **Tom Stone** | Rockville, Maryland

Pirates of the high seas don't do what they do to satisfy "our insatiable appetite for fish." They do it to try to satisfy their own endless hunger for money.

— **Rick Alexander** | Bloomington, Indiana

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institutional knowledge

LONNIE G. BUNCH III, SECRETARY

HOW WE COLLECT

Things That Matter

FINDING THE NEXT AWE-INSPIRING ARTIFACT REQUIRES FLEXIBILITY, HELP FROM THE COMMUNITY—AND A HEALTHY DOSE OF GOOD LUCK

OF ALL THE REASONS people visit the Smithsonian, number one is the collections. Dorothy's Ruby Slippers, the Wright Flyer, the Hope Diamond: Each gives me chills—an electrifying sense of encountering the past.

Some of the proudest moments of my professional career have been finding those pieces that can excite, educate and awe our audiences. I've learned that good collecting requires flexibility, community partnership and a healthy dose of serendipity.

With over 156 million items in our ever-growing collections, the Smithsonian acquires objects in many ways: through donations from individuals and organizations, through scientific field expeditions, and in the case of living collections, through birth or propagation. Sometimes we seek out specific items; other times we work within a community to see what we can unearth. For instance, the collections of the National Museum of African American History and Culture were built in large part by asking Americans across the country to dig through their garages, basements and attics. Families entrusted us with their heirlooms: a Madam C.J. Walker pin, a Pullman Porter hat, a Croix de Guerre medal awarded to the Harlem Hellfighters, the storied World War I regiment.

Smart collecting also means saying yes to the unexpected. When my NMAAHC team asked Chuck Berry for his iconic guitar, he responded that he'd only donate it if we took his candy-apple red Cadillac, too. I'm not a car guy, so my staff had to convince me it was the right call. But that Cadillac has become one of our visitors' most beloved pieces.

But the role of museums isn't just to acquire items already venerated. We also look for everyday objects that can reflect the tint and texture of a certain period in time. We collect today so that we can tell the story tomorrow.

During the Covid-19 pandemic, the Smithsonian is asking essential health care workers to donate their personal protective equipment when they no longer need it. We've reached out to families asking them to document their experiences in quarantine. Our curators have also been on the edges of the racial justice protests, collecting homemade signs and masks, recording the stories of the participants. Each of these ephemera offers a window into our unique moment. Just as we stand in awe of the materials of our history, we can ensure that when future generations look back to learn the lessons this moment provides, they have the record they need. ◆

Rock legend Chuck Berry drove his 1973 Cadillac Eldorado onto a St. Louis stage in *Hail! Hail! Rock 'n' Roll*, a 1987 documentary.

NATIONAL MUSEUM OF AFRICAN AMERICAN HISTORY AND CULTURE; ILLUSTRATION SOURCE: MICHAEL BARNES / SMITHSONIAN INSTITUTION ARCHIVES

Portrait illustration by **Jurell Cayetano**

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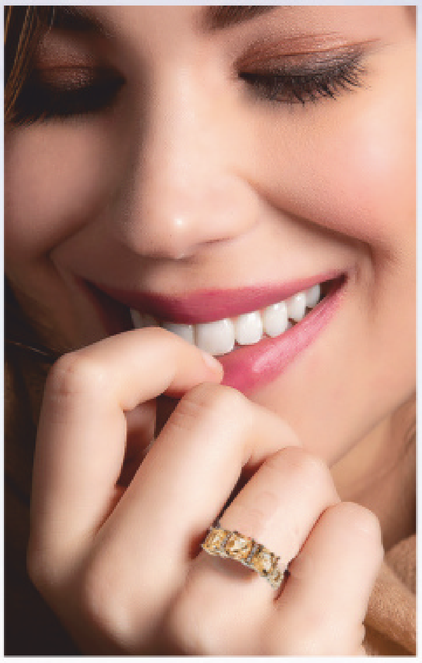

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— *Jewelry Jealousy, 2018*

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By
Winifred Gallagher

Photograph by
Levi Mandel

You’ve Got Mail

How our oldest communications network forged a nation

“The Postal Service is one of the oldest federal agencies,” says Daniel Piazza of the Smithsonian National Postal Museum. “Maybe for that reason, we tend to take it for granted.”

AMERICAN ICON

An early instance (circa 1910) of a Rural Free Delivery carrier using an automobile.

FROM 1753 TO 1774, AS HE oversaw Britain's colonial mail service, Benjamin Franklin improved a primitive courier system connecting the 13 fragmented colonies into a more efficient organization that sped deliveries between Philadelphia and New York City to a mere 33 hours. Franklin's travels along the post roads would inspire his revolutionary vision for how a new nation could thrive independent of Britain. But not even he imagined the pivotal role that the post would play in creating the Republic.

By the early 1770s, Franklin's fellow patriots had organized underground networks, the Committees of Correspondence and then the Constitutional Post, that enabled the founders to talk treason under the British radar. In 1775, before the Declaration of Independence was even signed, the Continental Congress turned the Constitutional Post into the Post Office of the United States, whose operations became the first—and for many citizens, the most consequential—function of the new government itself.

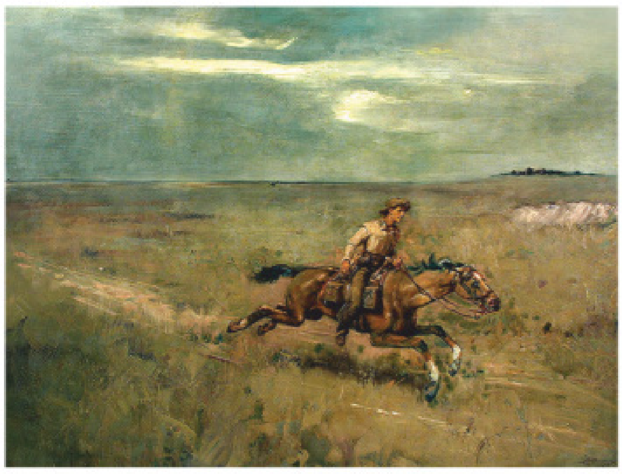
James Madison and others saw how the post could support this fledgling democracy by informing the electorate, and in 1792 devised a Robin Hood scheme whereby high-priced postage for letters, then sent mostly by businessmen and lawyers, subsidized the delivery of cheap, uncensored newspapers. This policy helped spark America's lively, disputatious political culture and made it a communications superpower with remarkable speed. When Alexis de Tocqueville toured the young country, in 1831, the United States boasted twice as many post offices as Britain and five times as many as France. The astonished political philosopher wrote of hurtling through the Michigan frontier in a crude wagon simply called "the mail" and pausing at "huts" where the driver would toss down a bundle of newspapers and letters before hastening along his route. "We pursued our way at full gallop, leaving the inhabitants of the neighboring log houses to send for their share of the treasure."

By the 1840s, though, the post faced a crisis. Average citizens, fed up with high prices—sending a letter more than 150 miles cost around 20 cents, or roughly $6 today—were turning to cheaper private carriers, almost putting the Post Office out of business. In response, Congress converted the post into a public service that no longer had to break even, and in 1845 slashed letter

New Horizons

THE SMITHSONIAN NATIONAL POSTAL MUSEUM SHOWS HOW INNOVATIONS PUT AMERICANS IN TOUCH WITH THE FRONTIER

By **Ted Scheinman**



1860
Back when the railroads only went as far west as Missouri, the Pony Express, honored in this 1904 painting, helped cover the missing ground for about a year and a half. Mounted carriers famously sped mail the 1,800 miles from St. Joseph, Missouri, to Sacramento, California, in just ten days.

postage to 5 to 10 cents, depending on distance.

The post continued to subsidize the nation's transportation infrastructure. In the East, railroads replaced mounted couriers and stagecoaches. To connect the coasts, the department first financed steamships to carry the mail through the Isthmus of Panama. Then it invested in stagecoaches, which sped the mail from Missouri and Tennessee, where the railroads stopped, to California, enabling vital communications during the gold rush. In 1869, the great transcontinental railroad was completed. The mail was a lifeline connecting Western settlers with loved ones back home.

> "THE POST OFFICE ALMOST ALONE SUPPORTED THE AVIATION INDUSTRY UNTIL THE LATE 1920S."

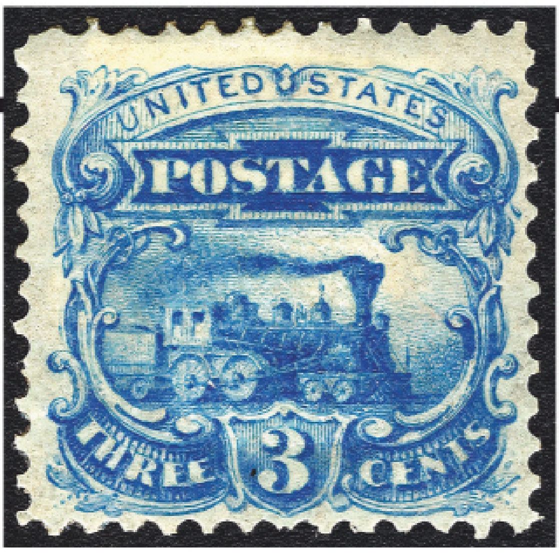
When the Civil War split America, Montgomery Blair, President Lincoln's postmaster general, used the savings from suspending service in the Confederacy to upgrade the Union's mail system. He expanded the Railway Mail Service, authorized the first money orders and began deliveries to urban residences, while the post became the first major institution to employ large numbers of women and African Americans.

The innovations that followed included Rural Free Delivery (1896) and Parcel Post (1913), which brought rural residents into the mainstream. At a time when banks largely ignored the needs of average citizens, the Postal Savings System (1911) provided basic financial services. As World War I engulfed Europe, the Post Office recognized the value of air transport and almost alone supported the aviation industry until the late 1920s.

The boom after World War II doubled the volume of mail even as the cash-starved department racked up big deficits and faced a fiscal crisis recalling that of the 1840s. Alarmed, Congress in 1970 remade the department into the United States Postal Service, a government-business hybrid that has received no tax dollars since 1982 but nonetheless remains subject to congressional oversight. By the end of 2006, the Postal Accountability and Enhancement Act had saddled the service with tens of billions of dollars of debt by requiring that it prefund its retirees' health benefits.

While the post is once again the subject of controversy, it's still the federal service that Americans rate most highly, according to a 2019 Gallup poll. Apparently unaware that much of the USPS's business is now parcel delivery, which boosted revenue by $1.3 billion from 2018 to 2019, Jerry Seinfeld recently joked that he couldn't fathom how a "system based on licking, walking and a random number of pennies" is struggling. Yet in 2020, with Americans isolated by Covid-19, countless folks depend on a system that supplies every address with critical materials, including stimulus checks, ballots and, perhaps soon, medical tests. ◆

NATIONAL POSTAL MUSEUM (5)



1869

This is one of the earliest depictions of a train on a postage stamp, says Daniel Piazza, a curator at the Postal Museum. It was issued the same year the transcontinental railroad was completed, opening a new era in communication as well as expansion.

1904-1918

This box, one of the models that tinsmith Charles Boyer produced in Marengo, Illinois, in the early 20th century, helped rural carriers fulfill their duty as a kind of traveling post office. Boyer's ads promised carriers that his boxes would "add dignity to your position" and "make your work easier" by holding up to 500 stamps and 35 money orders. This one belonged to John Goudy, a rural letter carrier from Steuben County, Indiana.

1922

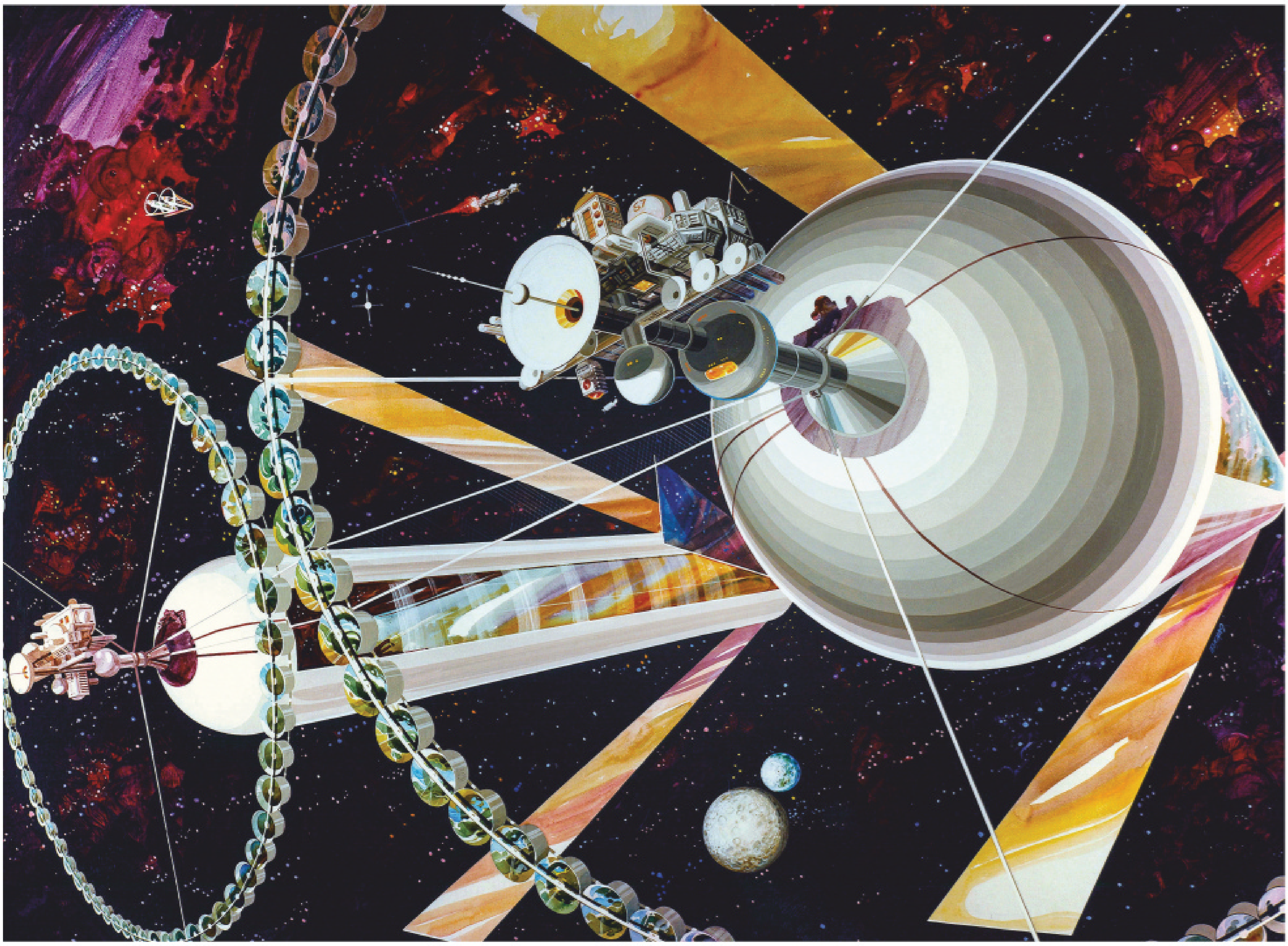
During winter in the late 19th and early 20th centuries, couriers used dog sleds to deliver mail to Americans in the Alaska Territory. Ed Biederman drove this sled to deliver mail across his 160-mile route between Circle and Eagle, Alaska, until he retired in 1935 after a nasty case of frostbite.

ART

By
Amy Crawford

MARKETING THE MOON

When it came to exploring outer space, Americans had to see it to believe in it



A mid-1970s painting by illustrator Rick Guidice depicts an extraterrestrial colony designed by Princeton University physicist Gerard O'Neill.

NASA

LONG BEFORE scientists and engineers could send astronauts into space, they had to convince the public—and the officials who would fund these first forays—that such a wild undertaking was possible. "You couldn't just say, 'We're going to build rockets,' and ask people to believe it—you really had to show them how," says Piers Bizony, a British journalist and author of the lavishly illustrated book *The Art of NASA*, out this month. It reveals how the agency and its contractors sold many of their otherworldly ideas to a sometimes skeptical nation. From cutaways of lunar modules and landing capsules, to fantastical depictions of life on Mars in far-off 2020, these images represented NASA's first steps in the space race and helped build congressional support for ambitious projects like the space shuttle. Today, Bizony believes, they offer not only visions of a glorious American past but also hope for a future that could still be ours. "Getting into space for peaceful purposes—everybody looks up to America for that," he says. "Speaking as an outsider who loves the USA very much, I think the United States needs to be reminded what it has been capable of." ◆

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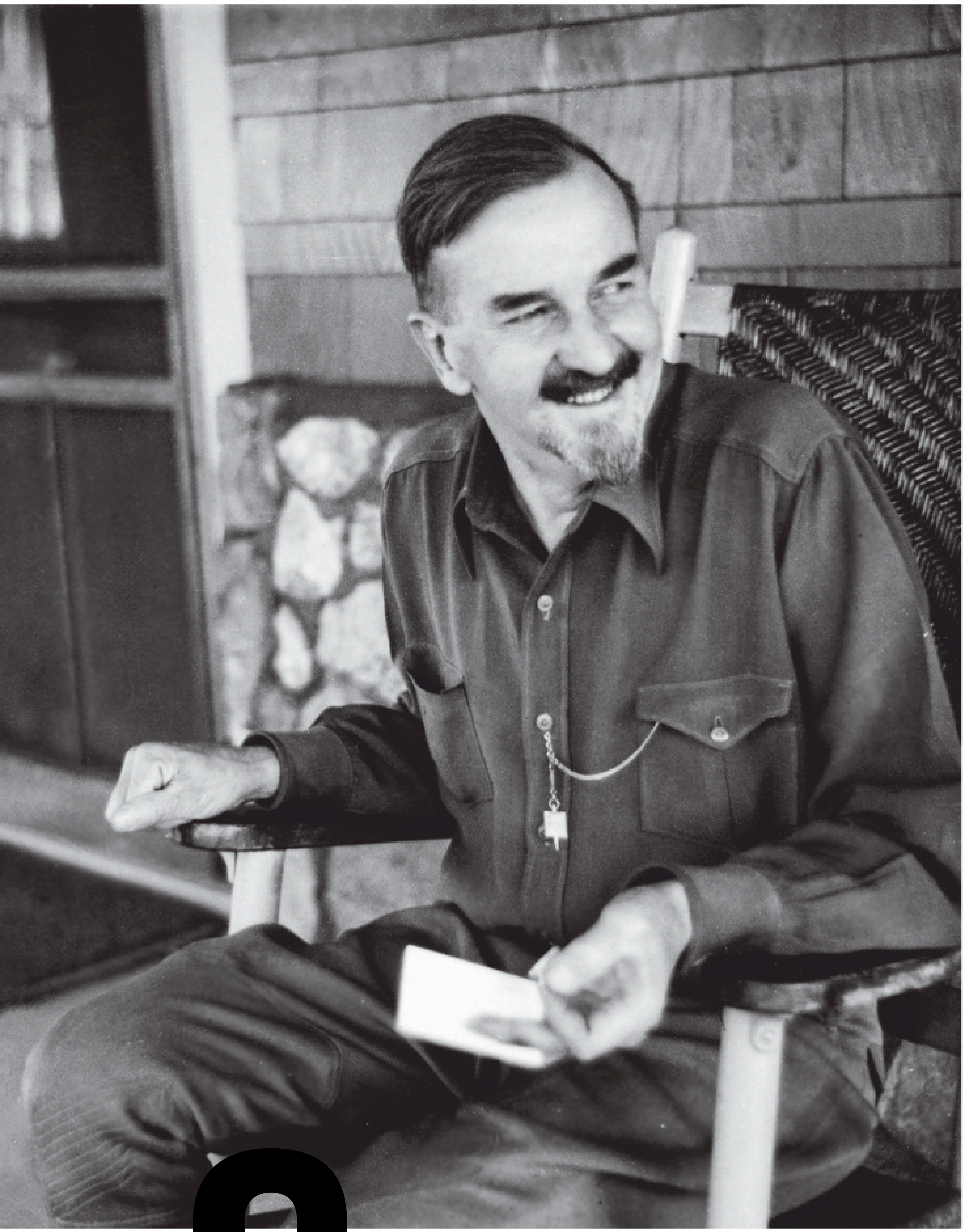
LITERATURE

By
Carson Vaughan



Badger Clark in the summer of 1940.

DAKOTA WESLEYAN UNIVERSITY ARCHIVES

The Cowboy Poet

Ballad of the forgotten life and indelible verse of a man known to many as “Anonymous”

SOUTH DAKOTA’S FIRST POET laureate lived much of his life alone in a prim cabin in the heart of Custer State Park. He wore whipcord breeches and polished riding boots, a Windsor tie and an officer’s jacket. He fed the deer flapjacks from his window in the mornings, paid $10 a year in ground rent and denounced consumerism at every turn. “Lord, how I pity a man with a steady job,” he wrote in his diary in 1941.

Born January 1, 1883, Badger Clark built a career writing what many today call “cowboy poetry,” and what many others, then and now, call doggerel. Clark himself seemed resigned to this lowbrow status. “I might as well give up trying to be an intellectual and stick to the naivete of the old cowboy stuff,” he wrote in his diary at the age of 58. Yet Clark’s poetry became so widely recited throughout the American West that he eventually collected over 40 different postcards featuring his most popular poem, “A Cowboy’s Prayer,” each of which attributed the poem to “Author unknown” or “Anonymous,” as if the poem belonged to everyone—as

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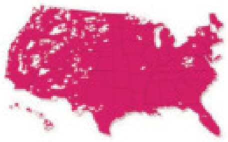

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if it had been reaped from the soil itself. As *Poetry* magazine acknowledged in a correction in September 1917, after mistakenly attributing another Clark poem to "Author Unknown": "It is not everyone who wakes to find himself a folk-poet, and that in less than a generation."

Beyond his home state of South Dakota, few will recognize the name Badger Clark today. Even in the late 1960s and '70s, when at least one of his poems slipped into the canon of the Greenwich Village folk scene, his name carried little currency. Yet at the peak of his career, Clark lunched with President Calvin Coolidge and later ushered Dwight Eisenhower through Custer State Park, where he often served as a golden-tongued ambassador.

Clark's life and family were themselves the stuff of song: His mother was "a sturdy advocate for women's suffrage," Clark wrote. His father had preached at Calamity Jane's funeral. And when Clark was just 20 years old, he scrapped college to join a group of South Dakotans set on colonizing Cuba. Their enterprise quickly folded, but Clark stayed for over a year. He found work on a plantation, narrowly survived a gunfight with the neighbors and then spent two weeks in a squalid prison singing dismal songs with an illiterate Texas cowpuncher. In a letter to his parents shortly after leaving the island, he scrawled a hasty poem:

The Parthenon's fair, the Alhambra will do,
And the Pyramids may serve a turn,
But I took in the loveliest sight of my life
When I saw Cuba—over the stern.

Clark at work corralling words in 1945.

DAKOTA WESLEYAN UNIVERSITY ARCHIVES

> **"YOU CAN BREAK ME IF THERE'S A DEAD POEM IN THE BOOK. WHO IN THE HELL IS THIS KID CLARK?"**

While Clark is most closely associated with South Dakota, it was the borderland of southern Arizona that sparked his literary career. Like his mother and brother before him, both of whom had died before he graduated from high school, Clark contracted tuberculosis. Following a doctor's recommendation, he retreated at age 23 from Deadwood, South Dakota, to the Arizona desert outside Tombstone. Not long after he arrived, he met brothers Harry and Verne Kendall, the new proprietors of the Cross I Quarter Circle Ranch, ten miles east of the city. They were looking for a caretaker while they worked the mines, and though the gig didn't come with a salary, Clark could live free on the ranch, seven miles from the nearest neighbor—hardly the worst arrangement for a 23-year-old nature-lover with a communicable disease. He accepted, and for the next four years reveled in his new surroundings while his symptoms faded in the desert sun.

"The world of clocks and insurance and options and adding machines was far away, and I felt an Olympian condescension as I thought of the unhappy wrigglers who inhabited it," he wrote of his years on the ranch. "I was in a position to flout its standards."

Clark befriended a neighboring cowboy and welcomed others who occasionally stopped by to

BYLINES **Carson Vaughan** is the author of the nonfiction book *Zoo Nebraska: The Dismantling of an American Dream*. He lives in Chicago.

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water their horses. Though never quite a cowboy himself—“I drearily acknowledge that I was no buckaroo worthy of the name”—he eagerly absorbed their stories, adopted their lingo and accompanied them on cattle roundups and other adventures. And when he wrote his father and stepmother back home, the ranch dog snoring at his feet and the agave towering outside his window, he occasionally turned to verse, memorializing this Western brand of freedom. His stepmother was so keen on his first dispatch, a poem called “In Arizony,” she sent it to the editors of *Pacific Monthly*, one of her favorite magazines. They changed the title to “Ridin,’” and several weeks later, Clark received a check in the mail for $10, spurring him to develop a literary talent that, as an editor later wrote, “tied the West to the universe.”

> **“THE WORLD OF CLOCKS AND INSURANCE AND OPTIONS AND ADDING MACHINES WAS FAR AWAY.”**

After four years in Arizona, Clark returned to South Dakota in 1910 to take care of his aging father in Hot Springs, and in 1915, with a loan from his stepmother, he published his first collection, *Sun and Saddle Leather*, later enshrined as a classic of the genre. He was able to pay her back within the year; by 1942, the book had sold more than 30,000 copies. When the Federal Writers’ Project polled the state’s newspaper editors and librarians in 1941, they ranked the collection as the best book by a South Dakota writer. To this day—thanks in part to the South Dakota Historical Society Foundation, which has reissued all of Clark’s major works—it has never slipped out of print.

Near Legion Lake in Custer State Park is the cabin, open to the public, where Clark spent the last 20 years of his life.

DAKOTA WESLEYAN UNIVERSITY ARCHIVES

Inspired by Rudyard Kipling and Alfred, Lord Tennyson, Clark shunned free verse in favor of meter and rhyme, composing primarily in ballad form. The best of his poems bounce you in the saddle, gallop across the page, train your eyes toward the sun and your heart toward the West, offering a vital escape from the hassles of modern life: the overdue bills, the overflowing inbox, the wearisome commute. And today, as climate change and urbanization threaten our last truly wild spaces, and Covid-19 bullies us into quarantine, that hint of freedom tastes especially sweet. Clark’s verses beg for recitation, and it’s little wonder his work spread so quickly throughout the Western cattle country of the early-to-mid-20th century. As one old cowpuncher supposedly said after reading Clark’s first collection, “You can break me if there’s a dead poem in the book, I read the hull of it. Who in hell is this kid Clark, anyway? I don’t know how he knowed, but he *knows*.”

Clark’s total output was slim, just three volumes of poetry, one book of interconnected short stories and a smattering of essays and pamphlets, most of them first published in magazines like *Pacific Monthly* or *Scribner’s*. He preferred living to writing about it, his grandniece once observed, and chose a craft that afforded him the greatest pleasure for the least amount of work. “If they’ll pay for such stuff,” he remembered thinking upon receiving his first check, “why, here’s the job I’ve been looking for all along—no boss, no regular hours [or] responsibility.”

In 1924, a few years after his father died, Clark retreated to a one-room cabin in the heart of Custer State Park, and in 1937, he upgraded to a larger cabin of his own design; he called each of them “Badger Hole,” and the second one is now open to the public, largely as he left it. Clark would live there for the rest of his life, celebrating the hills in verse, rolling his own cigarettes, and consulting the wildlife for his daily weather forecast. In 1937, when South Dakota named Clark its first poet laureate, he wrote to Governor Leslie Jensen: “South Dakota, prairie and hills, has been my mother for 55 years. Some of her sons seem to love the old lady mainly for the money they can get out of her, but as I've never got any my affection must be the impractical, uncalculating, instinctive, genuine sort."

In his later years, Clark spent considerable time writing letters to the *Rapid City Journal*, the state's leading newspaper. They reveal a staunch pacifist, a naturalist and often brazen individualist who distrusted technology and vehemently opposed segregation. "We still owe the Negro for 250 years of unpaid labor, and we owe the Indian for some three million square miles of land," he wrote in one letter to the paper in 1954.

While he would never become a household name, big-time musicians from Johnny Cash to Judy Collins would later perform his work. Emmylou Harris recorded songs based on Clark's poems, as did Michael Martin Murphy, Don Edwards, Paul Clayton and Tom Russell. In 1947, killing time between trains, Clark slipped into a movie theater in Fremont, Nebraska, and was stunned to find Bing Crosby crooning Clark's poem "A Roundup Lullaby" in the popular western musical *Rhythm on the Range*. The movie had come out over a decade before—Clark just didn't know his poetry had been a part of it.

In the enthusiastic if somewhat insular community of cowboy poets, Clark remains a patron saint, his work performed at hundreds of gatherings across the country every year. "Most everybody who's writing cowboy poetry now, who's really serious about it—they've all read Badger," says Randy Rieman, a Montana horse trainer and a mainstay on the cowboy poetry circuit. "I don't know how you could separate today's good writers from his work."

Clark once bragged, "I could smoke like Popocatépetl," referring to the famous volcano in central Mexico—but all those cigarettes would finally kill him. He died of throat and lung cancer on September 27, 1957. He was 74 years old. Acknowledging his anonymity in his later years, Clark quipped: "Mr. Anonymous has written some marvelously good things." ◆

HEAR MUSICIANS *perform songs based on Clark's poetry at* ***Smithsonianmag.com/badger***

The Bard's Greatest Hit

THE STRANGE BUT TRUE TALE OF A MOURNFUL BALLAD YOU PROBABLY DIDN'T KNOW WAS WRITTEN BY BADGER

By **Ted Scheinman**

In 1925, while working slow days for the Hays Cattle Company, an Arizona cowboy named Bill Simon happened upon a copy of Badger Clark's 1915 book of poems, *Sun and Saddle Leather*. Simon composed a melody to go with "A Border Affair" and turned the poem into a popular campfire singalong. Before long, it had become a fixture in the folk canon:

Nights when she knew where I'd ride
She would listen for my spurs,
Fling the big door open wide,
Raise them laughin' eyes of hers
And my heart would nigh stop beatin'
When I heard her tender greetin',
Whispered soft for me alone—
"Mi amor! mi corazón!"

1958

RICHARD DYER-BENNET

The English-born musician collected European and American folk songs, and not only performed them but sought to preserve them in his recordings. On his 1958 album, alongside such numbers as "Greensleeves" and "John Henry," Dyer-Bennet recorded "A Border Affair" under the soon-to-be popular title "Spanish Is the Loving Tongue."

1960

PETE SEEGER

The legendary folk singer nestled "Spanish Is the Loving Tongue" in a gentle medley of American ballads on his 1960 album *The Rainbow Quest*. Seeger's plain-spoken delivery and tender picking on the banjo underline the song's touching nostalgia for a lost lover.

1963

IAN & SYLVIA

A year before they married, the famed Canadian folk duo Ian Tyson and Sylvia Fricker recorded "Spanish Is a Loving Tongue" on their album *Four Strong Winds*; the lyrics' cowboy spirit may have particularly spurred the interest of Tyson, a former rodeo rider.

1971

BOB DYLAN

The Nobel Prize winner issued "Spanish Is the Loving Tongue" as the B-side to "Watching the River Flow." Five other versions followed, including a scintillating 1975 live performance, at the height of the singer's fascination with the southern border.

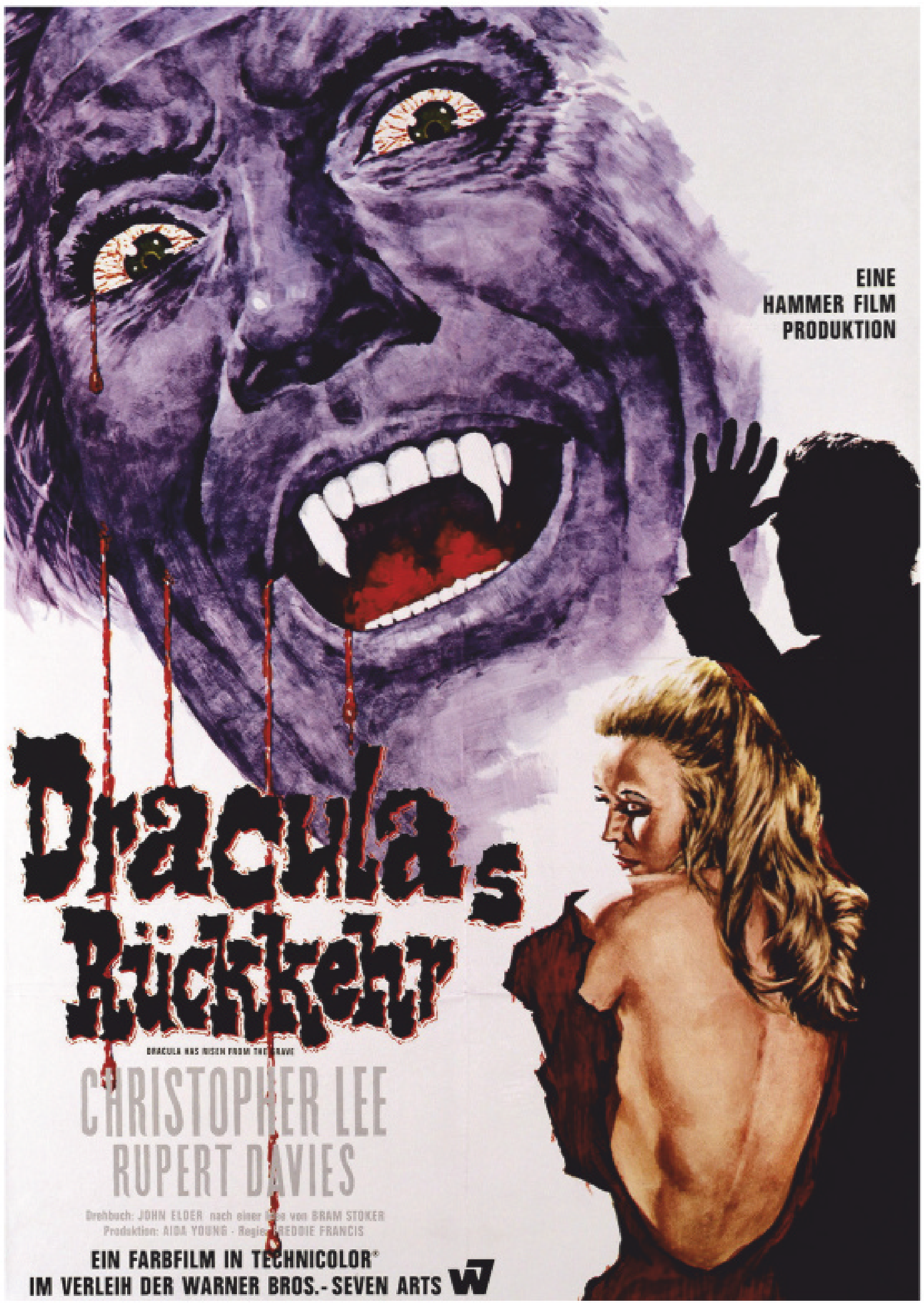
TOP TO BOTTOM: LIBRARY OF CONGRESS; SAM FALK / NEW YORK TIMES / GETTY IMAGES; GAB ARCHIVE / REDFERNS / GETTY IMAGES; KEN REGAN / CAMERA 5 VIA CONTOUR / GETTY IMAGES

ORIGINS

By
Katya Cengel

LONG IN THE TOOTH

An incisive history of a Halloween snarl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A poster for the 1968 German release of *Dracula Has Risen From the Grave*, the fourth in a series from Hammer Horror.

Christopher Lee as the titular vampire in Terence Fisher's 1958 *Dracula*, showing off bloody canines that would prove weirdly influential.

TODAY IT'S HARD to imagine a vampire without fangs. The undead have appeared in western folklore since at least the 18th century, yet most historians agree it was not until Bram Stoker's classic 1897 novel *Dracula* that fangs became widely associated with vampires in the popular imagination—and even in Bela Lugosi's landmark 1931 portrayal, Dracula didn't have fangs. While fangs began to appear on the big screen in the 1950s in Turkish and Mexican productions of *Dracula*, true vampire buffs say it was the 1958 British Hammer Films version, starring a sexy Christopher Lee in the title role, that popularized fangs in movies. (Theater previously had no use for them: In an era before stage microphones, actors needed to be able to articulate clearly and project to the audience, and fake fangs distort speech.)

Fake fangs made their way to the public thanks to Halloween. Brian Cronin, a longtime entertainment journalist, notes that the 1964 vampire mask marketed by Ben Cooper Inc., then one of the largest U.S. manufacturers of Halloween costumes, did not have fangs; by 1978 it did. In the intervening 14 years, Lee appeared in 12 vampire films—and thereafter Halloween was a veritable festival of fake chompers.

In the 1990s, role-playing tabletop games like *Vampire: The Masquerade* even inspired folks to join a community of people who identified as "real vampires," according to J. Gordon Melton, distinguished professor at Baylor University's Institute for Studies of Religion, who has written and edited scholarly books about vampires. Many "real vampires" dress the part year-round, complete with fangs.

Still, this lively subculture accounts for just a fraction of the fangs sold globally each year: Launched in 1993, Scarecrow Vampire Fangs now supplies around 250,000 sets of fangs to over 35 countries annually, mostly for Halloween. Co-founder Linda Camplese credits the popularity of her goods to increased adult participation in Halloween—and to the undying popularity of vampires: "People like the idea of living forever and being powerful," Camplese says. ◆

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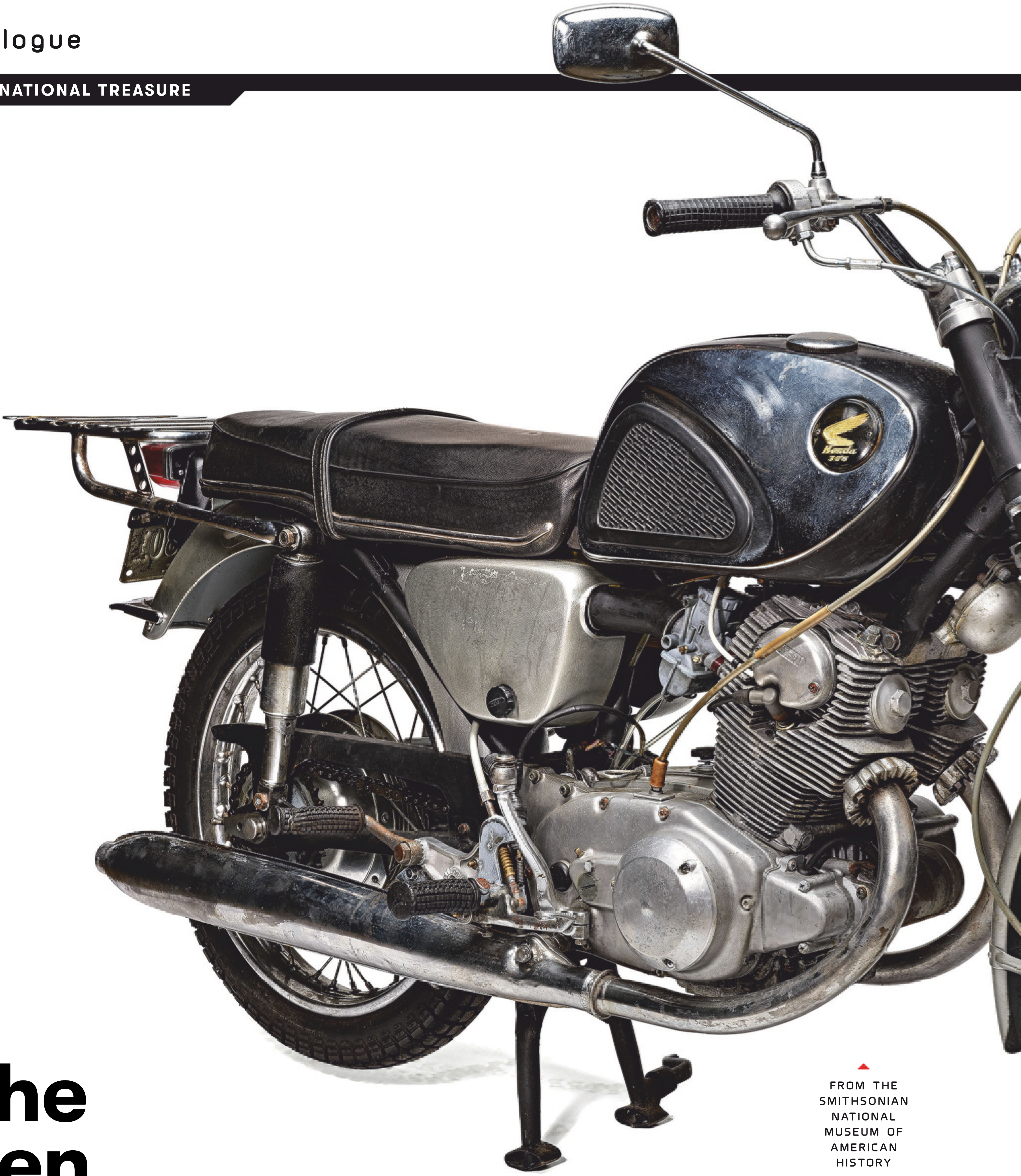


FROM THE SMITHSONIAN NATIONAL MUSEUM OF AMERICAN HISTORY

The Zen Machine

Robert Pirsig's motorcycle took millions of Americans on a new spiritual journey

By
Matthew B. Crawford

Photograph by
Jaclyn Nash

READING ROBERT PIRSIG’S description of a road trip today, one feels bereft. In his 1974 autobiographical novel *Zen and the Art of Motorcycle Maintenance*, he describes an unhurried pace over two-lane roads and through thunderstorms that take the narrator and his companions by surprise as they ride through the North Dakota plains. They register the miles in subtly varying marsh odors and in blackbirds spotted, rather than in coordinates ticked off. Most shocking, there is a child on the back of one of the motorcycles. When was the last time you saw *that*? The travelers’ exposure—to bodily hazard, to all the unknowns of the road—is arresting to present-day readers, especially if they don’t ride motorcycles. And this exposure is somehow existential in its significance: Pirsig conveys the experience of being fully in the world, without the mediation of devices that filter reality, smoothing its rough edges for our psychic comfort.

If such experiences feel less available to us now, Pirsig would not be surprised. Already, in 1974, he offered this story as a meditation on a particular way of moving through the world, one that felt marked for extinction. The book, which uses the narrator’s road trip with his son and two friends as a journey of inquiry into values, became a massive best seller, and in the decades since its publication has inspired millions to seek their own accommodation with modern life, governed by neither a reflexive aversion to technology, nor a naive faith in it. At the heart of the story is the motorcycle itself, a 1966 Honda Super Hawk. Hondas began to sell widely in America in the 1960s, inaugurating an abiding fascination with Japanese design among American motorists, and the company’s founder, Soichiro Honda, raised the idea of “quality” to a quasi-mystical status, coinciding with Pirsig’s own efforts in *Zen* to articulate a “metaphysics of quality.” Pirsig’s writing conveys his loyalty to this machine, a relationship of care extending over many years. I got to work on several Hondas of this vintage when I ran a motorcycle repair shop in Richmond, Virginia. Compared to British bikes of the same era, the Hondas seemed more refined. (My writing career grew out of these experiences—an effort to articulate the human element in mechanical work.)

In the first chapter, a disagreement develops between the narrator and his riding companions, John and Sylvia, over the question of motorcycle maintenance. Robert performs his own maintenance, while John and Sylvia insist on having a professional do it. This posture of

JACLYN NASH / NMAH

non-involvement, we soon learn, is a crucial element of their countercultural sensibility. They seek escape from "the whole organized bit" or "the system," as the couple puts it; technology is a death force, and the point of hitting the road is to leave it behind. The solution, or rather evasion, that John and Sylvia hit on for managing their revulsion at technology is to "Have it somewhere else. Don't have it here." The irony is they still find themselves entangled with The Machine—the one they sit on.

Today, we often use "technology" to refer to systems whose inner workings are assiduously kept out of view, magical devices that offer no apparent friction between the self and the world, no need to master the grubby details of their operation. The manufacture of our smartphones, the algorithms that guide our digital experiences from the cloud—it all takes place "somewhere else," just as John and Sylvia wished.

Yet lately we have begun to realize that this very opacity has opened new avenues of surveillance and manipulation. Big Tech now orders everyday life more deeply than John and Sylvia imagined in their techno-dystopian nightmare. Today, a road trip to "get away from it all" would depend on GPS, and would prompt digital ads tailored to our destination. The whole excursion would be mined for behavioral data and used to nudge us into profitable channels, likely without our even knowing it.

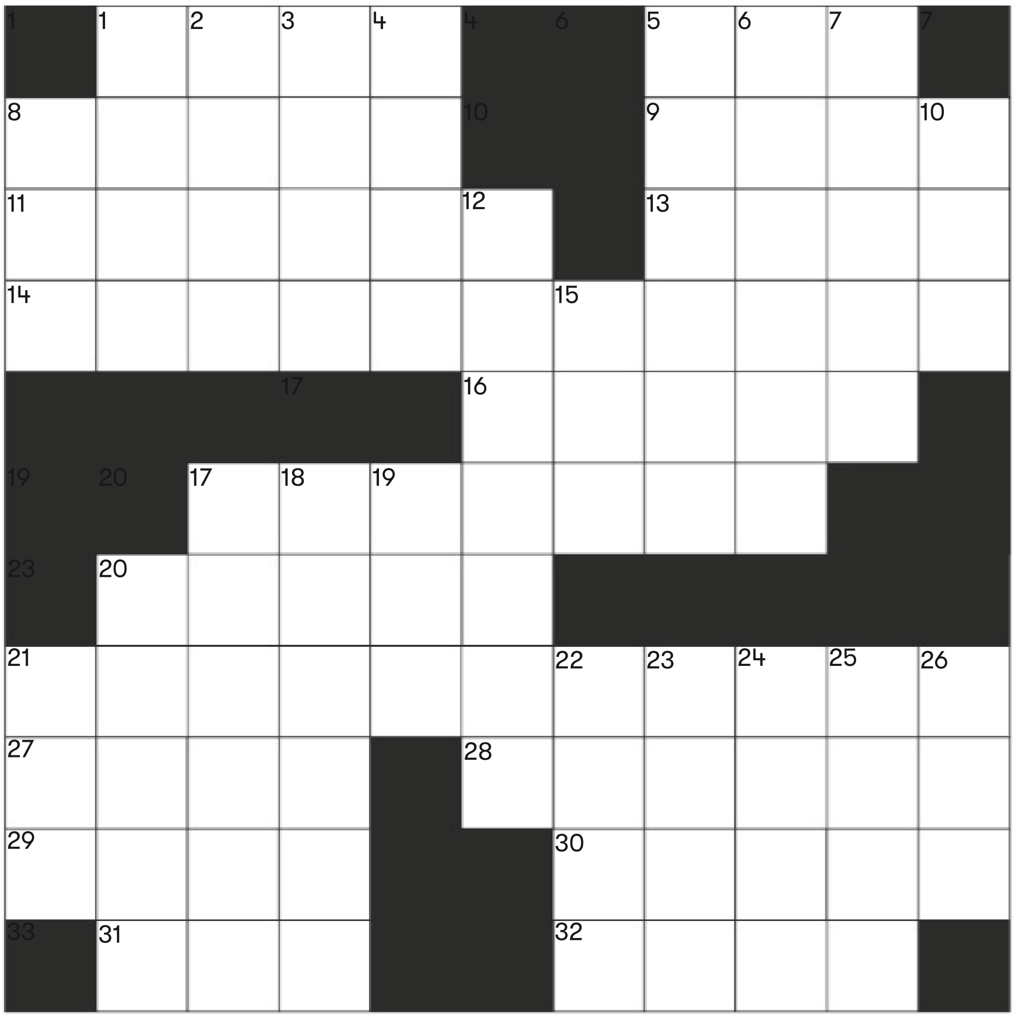
We don't know what Pirsig, who died in 2017, thought of these developments, as he refrained from most interviews after publishing a second novel, *Lila*, in 1991. But his narrator has left us a way out that can be reclaimed by anyone venturesome enough to try it: He patiently attends to his own motorcycle, submits to its quirky mechanical needs and learns to understand it. His way of living with machines doesn't rely on the seductions of effortless convenience; it requires us to get our hands dirty, to be self-reliant. In *Zen*, we see a man maintaining direct engagement with the world of material objects, and with it some measure of independence—both from the purveyors of magic and from cultural despair. ◆

SEE MORE PHOTOS *of Pirsig's motorcycle and tools at* ***Smithsonianmag.com/zen***

Don't Be Puzzled

YOU CAN FIND SEVEN CLUES IN THESE PAGES

By **Sam Ezersky**



Across

1 Tick off
5 Na+ or Cl-, in chemistry
8 Land bordering the state of Uttar Pradesh
9 Target for a lanternfly
11 Many, many
13 Persnickety about details
14 Pioneer of "cowboy poetry"
16 Monogram letters: Abbr.
17 What Thoreau called "the universal refuge"
20 ___ versus machine
21 Setting for part of *Zen and the Art of Motorcycle Maintenance*
27 Cookie in cookies-and-cream ice cream
28 From Croatia, say
29 Kind of service that can be traced back to the American Revolution
30 Anti-inflammatory brand
31 Stuff to trip on
32 Roman ruler whose depiction as a tyrant might be misconstrued

See the solution on Page 74.

Down

1 Like a movie about making a movie, say
2 Product sold with earbuds
3 Feature of a vampire, per Bram Stoker
4 Ice sheet
5 Leaning one way in a newspaper?
6 Fancy-schmancy
7 Gets closer
8 Catch in the act
10 Yellowstone denizen
12 Hit TV sitcom with six main characters
15 MSNBC competitor
17 Informal agreement to an observation
18 "A little birdie says . . . "
19 ___-di-dah
20 Hourly, more formally
21 Cutesy eating noise
22 Man's name that's an anagram of 13-Across
23 Green ingredient at a smoothie bar
24 Word said before putting down a walkie-talkie
25 DVR device
26 Typical card at the front of a new pack of cards

SACRED STONE OF THE SOUTHWEST IS ON THE BRINK OF EXTINCTION

Centuries ago, Persians, Tibetans and Mayans considered turquoise a gemstone of the heavens, believing the striking blue stones were sacred pieces of sky. Today, the rarest and most valuable turquoise is found in the American Southwest— but the future of the blue beauty is unclear.

On a recent trip to Tucson, we spoke with fourth generation turquoise traders who explained that less than five percent of turquoise mined worldwide can be set into jewelry and only about twenty mines in the Southwest supply gem-quality turquoise. Once a thriving industry, many Southwest mines have run dry and are now closed.

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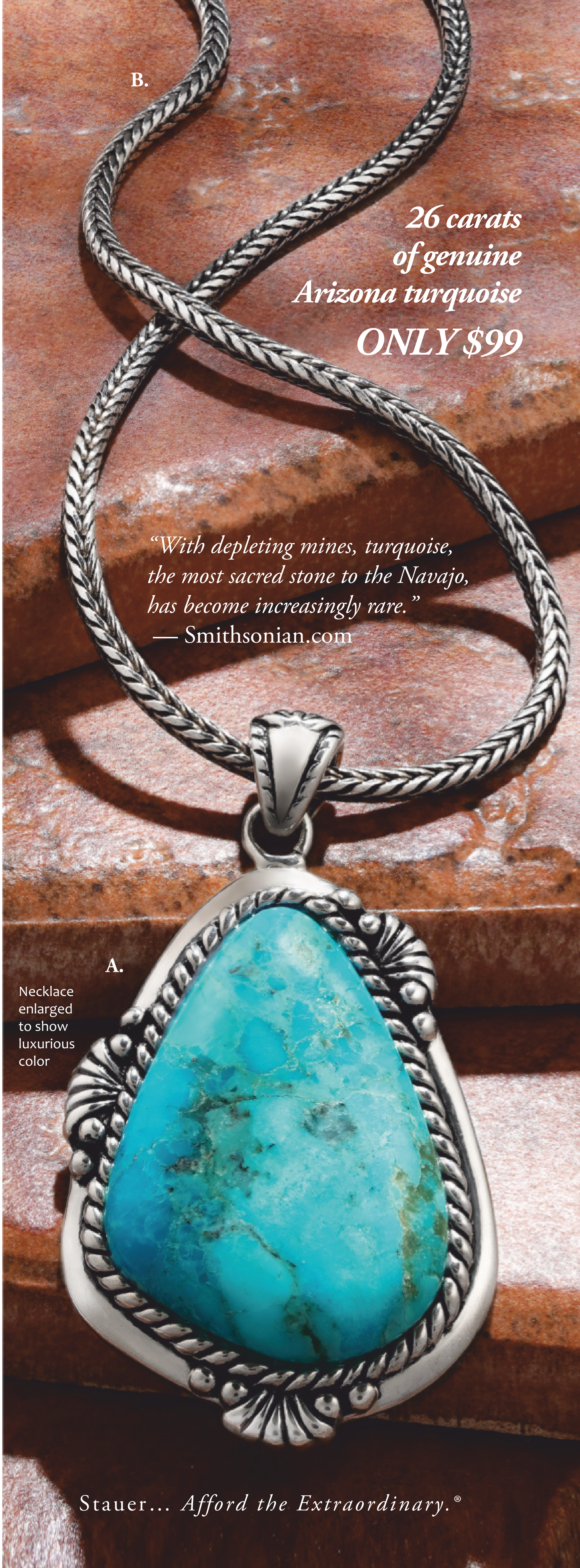

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Nero’s banquet hall is mostly in ruins today, but one of its most spectacular features remains: the oculus.

THE COLOSSEUM IN ROME DRAWS CLOSE TO EIGHT MILLION TOURISTS A YEAR, making it one of the world’s most-visited archaeological attractions. I could see the crowds converging on the magnificent first-century amphitheater as I headed across the street to a small park on a hillock. There was almost no one here, aside from a few young mothers pushing strollers along the pathways. A cluster of nuns passed by, and one of them pointed me toward a poorly marked gate at the base of the hill—the entrance to the Domus Aurea, or what’s left of it, anyway.

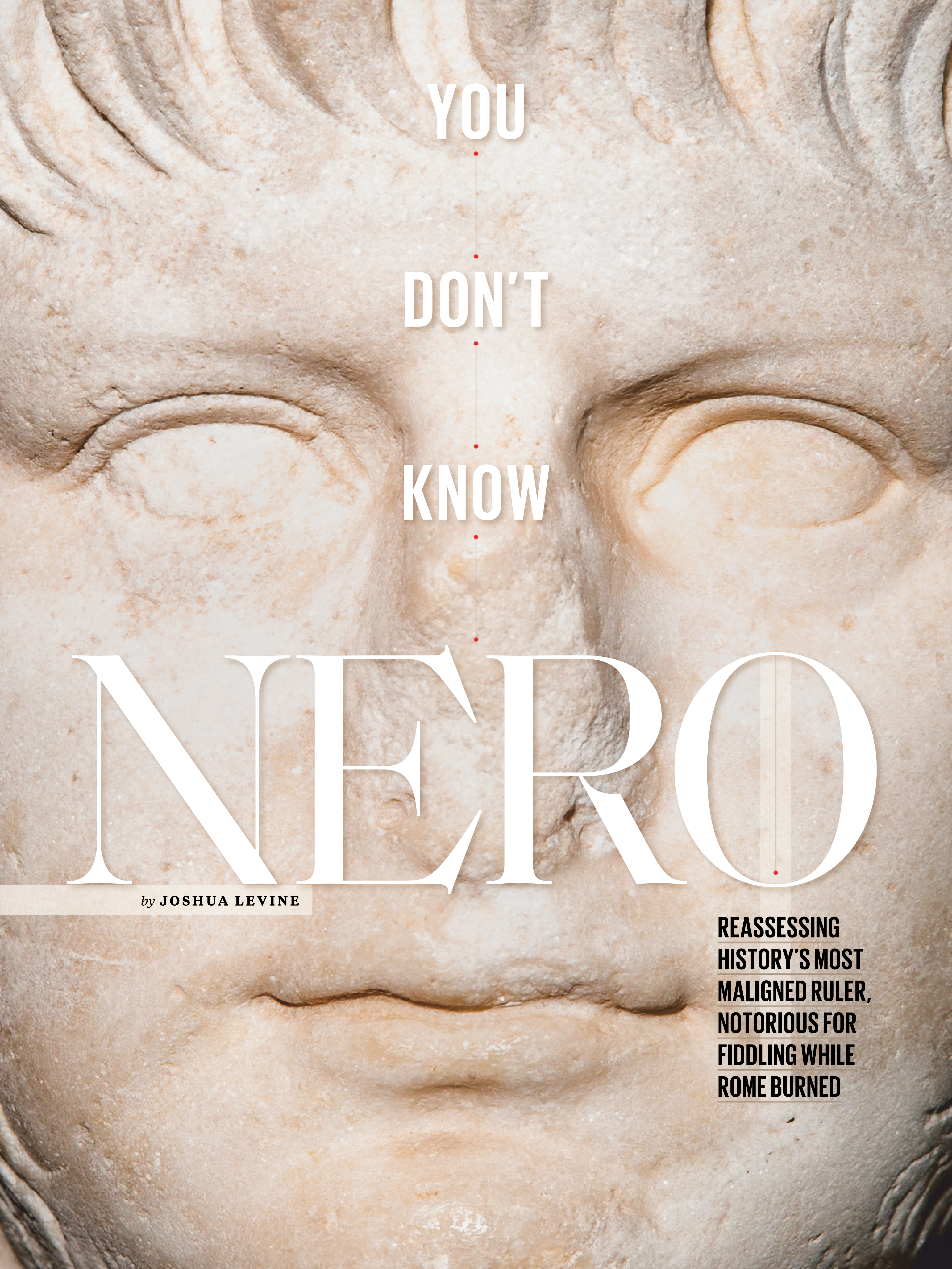
I had an appointment to meet Alessandro D’Alessio, who oversees the excavation and restoration of what must surely have been, in its day, the world’s biggest royal palace. Even before Covid-19, when the site was open to the public on weekends, few people came.

The emperor Nero commandeered many of the neighborhoods razed by the Great Fire of A.D. 64 to build a palace complex of staggering dimensions. The Domus Aurea, or Golden House, as the entire site was known, spread over almost 200 acres, covering the Palatine, Caelian and Esquiline hills of Rome. It was one of the big reasons that the Roman public suspected Nero of setting the fire himself. No modern scholar, and few ancient ones, believe he did, but you have to admit, the Domus Aurea seemed to give Nero a fairly good motive for arson.

As the first-century Roman historian Suetonius describes it, the Domus Aurea was a home fit for a megalomaniac. “His wastefulness showed most of all in the architectural projects,” Suetonius writes. “Parts of the house were overlaid with gold and studded with precious stones and mother-of-pearl. All the dining rooms had ceilings of fretted ivory, the panels of which could slide

photographs by **GAIA SQUARCI**

A portrait in marble of the emperor, circa A.D. 60. ›



YOU DON’T KNOW NERO

by **JOSHUA LEVINE**

REASSESSING HISTORY’S MOST MALIGNED RULER, NOTORIOUS FOR FIDDLING WHILE ROME BURNED back and let a rain of flowers, or perfume from hidden sprinklers, shower upon his guests. . . . When the palace had been decorated throughout in this lavish style, Nero dedicated it, and condescended to remark, 'Good, now I can at last begin to live like a human being!' "

The Domus Aurea is nearly all gone now. The emperors who followed Nero swept it away in a frenzy, attempting to efface him and his works from Roman memory. One section remains, buried beneath the footpaths of Oppian Hill. The emperor Trajan built his famous baths right on top of it, filling Nero's vast galleries with soil to support the weight of the baths. Trajan's memory-expunging project succeeded: The crowds who flock to the Colosseum across the street have no idea that the Domus Aurea is footsteps away. *Sic transit*.

For the past six years, D'Alessio has been supervising archaeological excavation of the sprawling Domus Aurea's 150-odd rooms. Even before Covid-19, the dig had halted while D'Alessio and his crew constructed an alternative drainage system to stabilize conditions inside. Completion of the project lies many years in the future.

D'Alessio guided me from one high-vaulted gallery to another. Splendid frescoes line some of the walls, in a style we recognize from the ruins at Pompeii—but the distinctive aesthetic, later expressed across the Roman Empire, originated here, at the Domus Aurea.

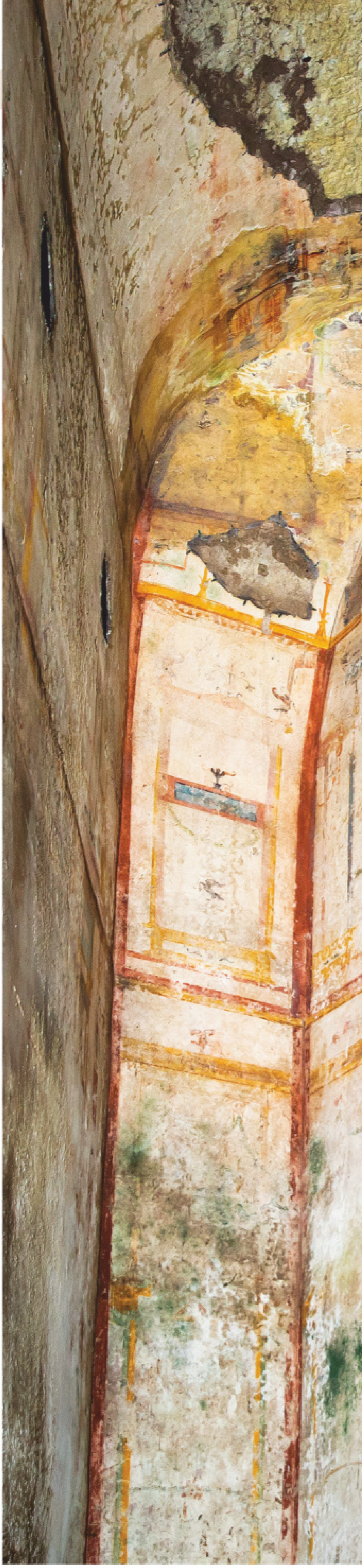
A little farther on, D'Alessio led me to a room, its walls surfaced with roughly textured pumice, recreating a natural grotto. The space was dedicated to the nymphs, or female nature deities, whose cult of worship had spread throughout the empire. A micro-mosaic adorns the ceiling: It depicts in astonishing detail a scene from the *Odyssey*. The ceiling mosaic surely influenced the Byzantines, who later plastered ceiling mosaics almost everywhere.

But the Domus Aurea's boldest artistic innovation was surely its architecture. We know little of the two men who designed it—Severus and Celer. D'Alessio thinks Nero himself must have stayed closely involved in this grand-scale project. After all, this is the kind of thing, not ruling Rome, that turned him on.

High overhead, an open hole, or *oculus*, invited the sky in. Rome's Pantheon uses the same device to magnificent effect, but Nero's Octagonal Room did it first. Alcoves radiated off the main space underneath, inviting the eye to wander in unexpected directions. Precisely angled windows channeled sunlight to hidden niches. Light and shadow danced around the room, following the course of the sun.

"Pure genius," says D'Alessio. "The Sala Octagonale is very significant for Roman architecture, but also for the development

"THE CHURCH CHOSE NERO AS THE REPRESENTATION OF EVIL, BUT IF YOU SEE WHAT HE MADE HERE, YOU GET A COMPLETELY DIFFERENT IDEA."



Still visible remnants of wall paintings attest to the opulence of myriad works commissioned by Nero. More than 300,000 square feet of frescoes—an area equivalent to 30 Sistine Chapels—await conservation.

Archaeologist Alessandro D'Alessio has taken on the task of carefully removing tons of soil dumped on the Domus Aurea by a Nero successor, Emperor Trajan.

A fragment of ceiling mosaic depicts a dramatic moment from the *Odyssey*: Ulysses offering a cup of wine to the monstrous one-eyed Cyclops.

of Byzantine and Islamic architecture. It is a very important place for Western civilization. Nero left us masterpieces. We have a certain image of Nero from the ancient sources who were against Nero, and also, in our time, from the movies. The Church chose Nero as the representation of evil, but if you see what he made here, you get a completely different idea."

AMONG HISTORY'S MOST durable memes, one ranks particularly high: a fleshy fellow in a toga, laurel wreath encircling his temples, standing among the columns of an ancient portico, while all around him, fire consumes the great city of Rome. He is not alarmed. Quite the contrary. He calmly plucks the strings of a lyre and, yes, even appears to be singing!

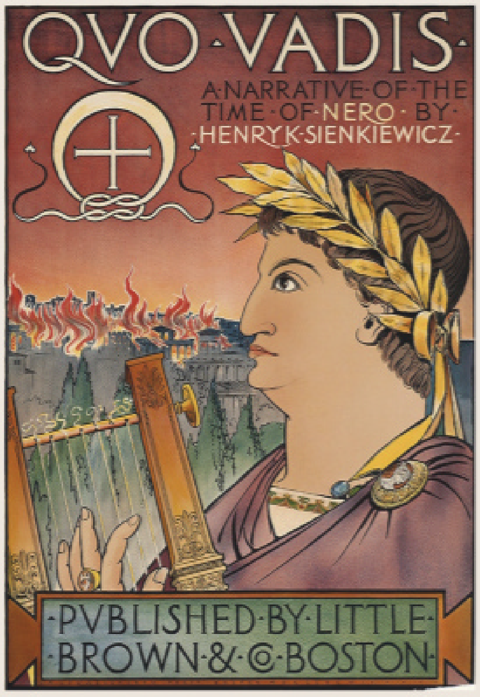
The meme says everything we need to know about this egotistical monster, his wanton indifference to human suffering and his pathetic delusions of artistic grandeur. He is at once childish and murderous. The story has been told and retold for almost 2,000 years, but it is Hollywood, not surprisingly, that has supplied the pictures in our heads. Pride of place must surely go to Mervyn LeRoy's 1951 epic *Quo Vadis*, thanks to Peter Ustinov's deliciously hammy Nero (the actor was nominated for an Oscar). "Look what I have painted!" shrieks Ustinov as he watches the Technicolor flames engulf his city.

Ustinov calls for his lyre. He commences to pluck. "I am one with the gods immortal. I am Nero the artist who creates with fire," he sings tunelessly. "Burn on, O ancient Rome. Burn on!" A panicky mob converges on the palace. "They want to survive," explains Nero's levelheaded counselor Petronius (portrayed by Leo Genn, also nominated for an Oscar). "Who asked them to survive?" shrugs Nero. Great cinema it isn't, but it is terrific stuff all the same. And this is more

BYLINES

Paris-based **Joshua Levine** recently reported on the French village of Le Chambon-sur-Lignon.

Italian photographer **Gaia Squarci** was granted special access to the Domus Aurea for our story.



or less the consensus Nero of history, set down first by the Roman historians Tacitus and Suetonius and etched deeper by the New Testament Book of Revelation and later Christian writings.

The man most responsible for Nero's modern incarnation is the Polish novelist Henryk Sienkiewicz, whose *Quo Vadis: A Narrative of the Time of Nero*, appeared in 1895 and was the basis for the Mervyn LeRoy film and half a dozen other cinematic versions. The plot centers on the doomed love between a young Christian woman and a Roman patrician, but their pallid romance is not what turned the novel into a worldwide sensation. Sienkiewicz researched Roman history deeply; his Nero and other historical characters hum with authenticity. It was they, more than the book's fictional protagonists, who vaulted *Quo Vadis* to runaway best-seller status, translated into over 50 languages. Sienkiewicz ended up winning the Nobel Prize in Literature in 1905.

Sienkiewicz plucks two strings that resonated loudly with his audience, and have done so ever since: Nero's role as the emblematic persecutor of early Christianity (Poland is a deeply Catholic country) and Nero's political tyranny (to Sienkiewicz, an ardent nationalist, Nero's Rome stood in for czarist Russia).

BUT WHAT IF NERO WASN'T such a monster? What if he didn't invent the spectator sport of throwing Christians to the lions in the Colosseum? What if he wasn't the tyrant who murdered upstanding Roman senators and debauched their wives? Indeed, what if the whole lurid rap sheet has been an elaborate set-up, with Nero as history's patsy? After all, we have no eyewitness testimony from Nero's reign. Any contemporaneous writings have been lost. The ancient Roman sources we do have date from considerably after Nero's suicide in A.D. 68. The case against Nero, then, is largely hearsay, amplified and distorted over two millennia in history's longest game of telephone. Besides, no one really wants to straighten out the record. Who wants another version of Nero? He's the perfect evil tyrant just the way he is.

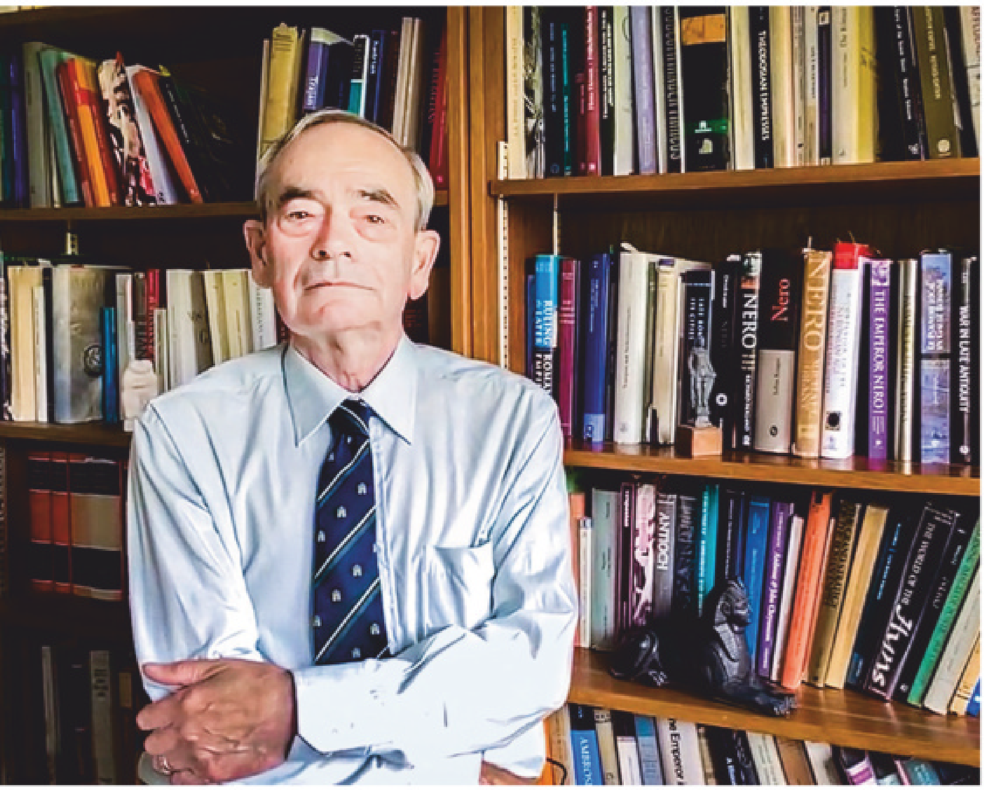
A few lonely voices have come to Nero's defense. In 1562, the Milanese polymath Girolamo Cardano published a treatise, *Neronis Encomium*. He argued that Nero had been slandered by his principal accusers. But Cardano was having his own problems with the Inquisition at the time. Sticking up for a guy who, among other things, supposedly martyred the first Christians for fun was not likely to help his own cause. "You put your life at risk if you said something good about Nero," says Angelo Paratico, a historian, who translated Cardano's manifesto into English.

Paratico's translation, *Nero, An Exemplary Life*, didn't appear until 2012, by which time historians had started taking another look at the case against Nero. Out of all the modern scholars coming to the emperor's rescue, the most comprehensive is John Drinkwater, an emeritus professor of Roman history at the University of Nottingham. Drinkwater has spent 12 years poring over the charges against Nero, and dismantling them one by one. Scourge of Christianity? Nope. Urban pyromaniac? No again. And on down through matricide, wife-killing and a string of other high crimes and misdemeanors.

The Nero who appears in Drinkwater's revisionist new account, *Nero: Emperor and Court*, published last year, is no angel. But one comes away with some sympathy for this needy lightweight who probably never wanted to be emperor in the first place and should never have been allowed to wear the purple toga.

Drinkwater is in line with the emerging trend of modern scholarship here, but he goes much further. Nero allowed a ruling clique to administer the Roman Empire, and it did so effectively, argues Drinkwater. Most of what Nero is accused of doing, he probably didn't do, with a few exceptions that fall well within the grisly standards of ancient Roman political machinations. Drinkwater's Nero bears little personal responsibility, and not much guilt, for much of anything. In the end, says Drinkwater, the "men in suits" got rid of Nero not for what he did, but for what he failed to act on. (On the other hand, Drinkwater believes that Nero probably crooned a few stanzas during the Great Fire, but we'll get to that later.)

Drinkwater says many modern scholars have been trying



John Drinkwater, at home in Sheffield, England, is the author of a new biographical study of Nero, who he says has been unfairly "denigrated, vilified and demonized."

18+

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Popular culture has reinforced our image of Nero as a monstrous, even psychotic dictator. From top left, a 19th-century engraving depicts the emperor as a bloodthirsty fan of gladiatorial combat; from the 1951 film *Quo Vadis*, an effete Nero with his empress Poppaea; scene from *Nero*, a 1905 London theater production; the best-selling novel focused on the mad emperor.

FROM TOP LEFT: SARIN IMAGES / GRANGER; GRANGER; HULTON ARCHIVE / GETTY IMAGES; THE ARTCHIVES / ALAMY STOCK PHOTO; FUNKYFOOD LONDON-PAUL WILLIAMS / ALAMY STOCK PHOTO

to explain why Nero was so awful—"that he was a young man put in the wrong job and therefore he went to the bad. He was tyrannical not because he was evil, but because he couldn't do the job. That's more or less what I expected too. I was surprised because my Nero was not coming out like this. My Nero was not the out-and-out evil tyrant, because he was never really in control. Nobody here is tyrannical."

The blame for saddling Nero with his unwanted destiny falls squarely on his mother, Agrippina the Younger, great-granddaughter of the emperor Augustus and a woman of boundless ambition. (Nero's father, an odious aristocrat, Gnaeus Domitius Ahenobarbus, died two years after Nero was born.) Nero became Agrippina's instrument for conquering the man's world of Rome.

She moved first to disrupt the planned nuptials of the emperor's daughter Octavia, so that Nero could marry her. The emperor at the time was Claudius, easily swayed. Agrippina's improbable little lie—that Octavia's fiancé had committed incest with his sister—proved toxic enough to torpedo the wedding. Readers of Robert Graves' picaresque and hugely popular Claudius novels are unlikely to forget the sexual gymnastics of Messalina, Claudius' notorious wife. In the end, Messalina's antics brought her down, leaving a vacancy in the marriage bed that Agrippina filled in A.D. 49. Shortly thereafter, Claudius adopted Nero as his own son, making Nero a legitimate claimant to the throne, alongside Claudius' natural son Britannicus. And finally, in A.D. 53, Nero married Octavia. The stage was set. Agrippina had managed everything with steely efficiency.

SEE MORE *of Gaia Squarci's images of Nero in Rome and Anzio at* ***Smithsonianmag.com/nero***

The Roman historian Tacitus is not always reliable and he is certainly not unbiased, but his portrait of Agrippina in her hour of triumph feels right today: "From this moment the country was transformed. Complete obedience was accorded to a woman—and not a woman like Messalina who toyed with national affairs to satisfy her appetites. This was a rigorous, almost masculine despotism."

More power to her, says Drinkwater, who is a big fan. "I think the Roman Empire lost out by not having Empress Agrippina. Given half the chance, I think she could have been another Catherine the Great. I admire her intelligence, her perspicacity. She was one of the few people who knew how the system worked. For example, Claudius is often reproached for killing a lot of senators, and he did, but when Agrippina comes along, you get very little of that. The modern thinking is that she worked well with the senate. If she had been given more time, she might have been able to establish a precedent of an active executive woman in Roman politics."

Claudius died in A.D. 54 after eating a mushroom that was either bad or poisoned—Tacitus and the ancients say poisoned on Agrippina's orders, and while there's no hard proof, nobody then or now would put it past her. In either case, Agrippina had greased the succession machine so that Nero, just 17, slid smoothly onto the throne following Claudius' death, past the slightly younger Britannicus.

We know very little about the teenager who found himself absolute ruler of a sprawling, multiethnic empire. He had been educated by the great Stoic philosopher Seneca, but Nero was clearly no stoic. We do know, however, that the Roman people welcomed their new emperor enthusiastically and held high expectations for his reign.

Things started out well, mostly because Nero was more than happy to allow three highly capable people to steer the ship of state: Seneca, Burrus, the levelheaded commander of the Praetorian Guard, and, of course, Agrippina. Behind them stood Drinkwater's "men in suits," the senators, well-trained freedmen and ex-slaves who made up a kind of civil service. In Drinkwater's account, the roster of Team Nero shifted around somewhat during the 14 years of his reign, but it oversaw the empire competently.

For his part, Nero gave himself over to the pursuits that mattered most to him—chariot-driving, singing, poetry and playing the cithara, a stringed instrument like a lyre but more complex and much harder

"MY NERO WAS NOT THE OUT-AND-OUT EVIL TYRANT, BECAUSE HE WAS NEVER REALLY IN CONTROL. NOBODY HERE IS TYRANNICAL."

In a first-century sculpture, Nero is crowned by his mother, Agrippina—a "proud and steely" power behind the throne, according to Drinkwater.

to master. Nero was a thoroughgoing philhellene—a lover of Greece and its sophisticated culture. He had little of the Roman appetite for blood and conquest, which makes him look far more appealing to us than to the Romans.

The Nero meme leaves the impression of an effete dilettante, confident in his own genius only because nobody had the guts to tell him otherwise. This is wrong on several counts. Suetonius tells us that Nero worked very hard to get good at singing. “He . . . conscientiously undertook all the usual exercises for strengthening and developing his voice. He would also lie on his back with a slab of lead on his chest, use enemas and emetics to keep down his weight, and refrain from eating apples and every other food considered deleterious to the vocal cords,” Suetonius reports, adding cattily that Nero’s voice remained “feeble and husky.”

Even the poetry Nero wrote himself was apparently pretty good; the Roman poet Martial tells us so. We have selections of it, and they don’t sound anything like the grandiloquent tripe that generally comes out of his mouth in the movies. Nero cannot be dismissed as a mere dabbler: He took his hobbies seriously—too seriously, in fact, for a Roman establishment that liked its emperors to make war, not art.

Nero was an accomplished athlete as well. Suetonius is impressed that Nero can pilot a four-camel rig around the racetrack. In other references, we find Nero at the reins of a ten-horse chariot. That was the ancient Roman equivalent of a Formula One car. Nero won races in it. “If Nero could do that, he is no fool. He is intelligent, he is fit. On his own terms, he is to be taken seriously and he’s not to be projected as a clown,” Drinkwater concludes.

Those qualities made the young Nero very popular with the common man. He had an exuberant personality and enjoyed being out in public. He was no snob and remembered the names and faces of people up and down the social ladder. All in all, he comes off as a fairly likable young fellow.

OK, sure, there were casualties. But let no one be overly troubled by the fact that Nero’s brother Britannicus turns up dead a year after Nero takes power. “He was doomed from the start,” Drinkwater writes. Political murder was an accepted tool of governance and made few waves in first-century Rome, provided it was not overused. Everybody did it, not just Nero.

“You get the impression that people are being murdered all the time,” Drinkwater told me. “But if you start adding up the Neronian murders, there are not that many of them.

“Even the thing that people point to later as the real blood bath, just after the Pisonian conspiracy of A.D. 65, if you tot up the numbers, they are still quite small—20 or 30. In terms of 16th- or 17th-century English politics, that’s nothing. It’s a surgical strike! I go bananas about this supposed ‘reign of terror.’ For those involved it was dreadful, and it’s not a society that one would have liked to live in, but it’s also not that dangerous for politicians. If you overstepped the mark, you paid the penalty, but most people knew where the boundaries were.”

Nero’s problems with his mother started early on, when he

^ From A.D. 54 to 68, Nero ordered construction of aqueducts, some of which are still standing in Rome, to carry water to vast parklands surrounding the Domus Aurea.

< After the Domus Aurea was rediscovered in the 1400s, artists such as Raphael and Michelangelo passed through shafts dug into the ruins to see the great frescoes.

fell in love for real. Not with Octavia, his wife, alas. Nero's arranged marriage to her brought neither love nor children. Instead, Nero fell hard for a lowborn freedwoman named Acte. He even flirted with the idea of marrying her, a project Drinkwater calls "absolutely silly." But it is Agrippina's disapproval of her son's comportment—not just with his mistress but a new gang of friends his own age—that plants the wedge between them. He's coming into his own and his mother is no longer the partner she intended to be. She's an impediment.

Before long, Nero strips Agrippina of her personal security detail and kicks her out of the palace. As in much ancient Roman history, the coinage tells the tale: first Agrippina and Nero stop appearing together on the heads side of Roman coins and she gets flipped to the tails side; then she disappears from coins altogether.

Things go downhill. When Nero falls in love again, this time with his adored future wife Poppaea, Agrippina again tries to come between them. Are these the real reasons Nero has his mother killed in A.D. 59? It seems like a stretch, but none of the ancient sources can explain to anyone's satisfaction why Nero commits this atrocity. Even by the grim standards of ancient Rome, you don't kill your mother. Matricide will become a defining moment for the authors of the Nero meme, when he is first fitted for his role as history's monster.

The story of the murder verges on the burlesque. Nero invites his mother to a kind of reconciliation party at his country villa in Baiae on the Bay of Naples. He graciously provides a galley to ferry Agrippina home after the party, but the boat is rigged to come apart at sea. Agrippina is meant to drown, but she is an unexpectedly strong swimmer and manages to make it safely back to shore. After some comical dithering, a henchman is sent to dispatch Agrippina the old-fashioned way, with a sword.

"When you look at the evidence here, you can play it any which way," says Drinkwater. "The great joy of doing ancient history is taking the bits you've got and putting them together—let's be honest—more or less the way you feel. I got to know Nero, and I always felt that he couldn't have done this to his mother in cold blood. They stayed close even after the breakup over Acte and the squabble over Poppaea. Down to her death, Agrippina is not stripped of her imperial titles. And the actual story of her death is so confused, overdramatic and elaborated that you could take the whole lot together and suggest that he didn't intend to kill her himself, but that after the shipwreck—or the accident—others seized the opportunity to get rid of her themselves."

Here Drinkwater directs the jury's attention to Seneca, designated by history as the virtuous foil to Nero, the frivolous killer. Seneca's noble suicide six years later (at Nero's not-so-polite invitation) became a favorite theme for European painters. Tacitus puts a parting dig at his executioner in Seneca's mouth: "After a mother's and a brother’s murder, nothing remains but the destruction of a guardian and tutor.”

Balderdash, says Drinkwater. Seneca was caught up in the bloody aftermath to Piso’s conspiracy, and it’s fair to say he knew about the conspiracy beforehand, even if he wasn’t a plotter himself. “If Seneca lived today, he would have been a TV guru, saying the right thing on his chat program. He had to survive in quite a difficult world, so he could write one thing and do another. One thing that recent biographers have made of him is that, when push comes to shove, he lacks moral courage. Good luck to him, but he doesn’t come out well at the end.”

OK, you might say, perhaps we can give Nero a pass on his brother and even his mother. (I haven’t mentioned his wife Octavia; she went too.) But what of the fire and what of the fiddling? They are the building blocks of the Nero legend. They are also among the least solid historically.

On July 18, A.D. 64, in the tenth year of Nero’s largely successful reign, a fire broke out in the Circus Maximus. The fire burned for nine days, destroying the better part of the city as it spread.

Nero wasn’t at home when the fire ignited. He was vacationing at Antium, today’s Anzio and another of his favorite getaways. But when news of the fire reached him, he hurried straight back to Rome and took charge—effectively—of firefighting efforts. He moved quickly to aid the victims. And in the fire’s aftermath, he introduced legislation to make Rome less vulnerable in the future.

AREA·DEL·BASAMENTO
DEL·COLOSSO·DI·NERONE

A visitor to Rome perches on the site where a 120-foot-tall statue of Nero once loomed. The structure may have been destroyed during a Visigoth invasion, A.D. 410.

“For the relief of the homeless fugitive masses he threw open the field of Mars . . . and even his own gardens,” writes Tacitus. “Nero also constructed emergency accommodation for the destitute multitude. Food was brought from Ostia and neighboring towns, and the price of corn was cut to one-quarter sesterce a pound. Yet these measures, for all their popular character, earned no gratitude. For a rumor had spread that, while the city was burning, Nero had gone on his private stage and, comparing modern calamities with ancient, had sung of the destruction of Troy.”

Perhaps the rumor wasn’t even true. The evidence is murky. Drinkwater believes that it was true, however, and that Nero sang his head off. But Drinkwater doesn’t see Nero’s singing the way history has depicted it—as proof of Nero’s cruel indifference to the plight of his people. “I think anyone with Nero’s artistic susceptibilities would have reacted the same way. He’s written an epic on the sack of Troy and we know the Greeks burned Troy. So it wouldn’t surprise me if he goes to the modern Farnese Gardens, looks down and lets loose. He’d already done all he could to fight the fire, so he just responded to the flames. But if we accept that he did that, he leaves himself open to the charge of arson.”

A more nuanced view of Nero’s response to the Great Fire receives strong support from a new book by Anthony Barrett, professor emeritus at the University of British Columbia at Vancouver. The historian’s *Rome Is Burning: Nero and the Fire That Ended a Dynasty*, draws on little-known Italian archaeological studies to reconstruct the tragedy and its consequences. While

Barrett concedes that the extent of the devastation is almost impossible to pin down—there are no casualty figures, and we don't know the name of one person who died in the fire—he finds it likely that the scale of human suffering was great. "The poor lived in high-rises that were notoriously dangerous—it is reasonable to surmise they were anywhere from five to eight stories high," says Barrett. "The people who lived there would have been trapped."

Barrett largely agrees with Drinkwater about the singing. "We have a contemporaneous account by a witness to the Great Chicago Fire of 1871 who speaks of its 'great beauty,'" says Barrett. "J. Robert Oppenheimer recited the Bhagavad Gita after witnessing the first explosion of the atom bomb. Scipio Africanus quoted Homer on seeing the destruction of Carthage. These are very human reactions to tragedy. Only in Nero is it seen as evil." Like Drinkwater, Barrett takes a dim view of the charge that Nero set the fire: "The case against Nero is very flimsy."

Still, Nero's musical response to the conflagration was indisputably a mistake. A few years later, Nero's "artistic susceptibilities" would get him in even deeper trouble. If a modern well-wisher could send one word of counsel back through time, it would be this: "Dear Nero, please stop singing."

THE DOMUS AUREA project was also a mistake, criticized in its day as a lot more house than any absolute monarch would ever need. But it may be that Nero never meant for this city-within-a-city to be his purely private playground. "The Emperor wanted to make its pleasures available to the people," David Shotter, a historian, asserts in his 2008 biography of Nero. "Recent excavations near the Arch of Constantine and the Colosseum have revealed a colonnaded pool, the stagnum Neronis, which imitated Nero's lake at Baiae and the stagnum Agrippae on the Campus Martius. The implication of this appears to be that Nero intended that his new house and the rebuilt city of Rome should be one—the home of the people and of himself, their Emperor, Protector and Entertainer." Shotter goes on, "those looking for signs of Nero's supposed madness will not find it here; his contribution to Roman construction should not be dismissed or underestimated in the shallow manner of many of his contemporaries. Here, writ large, is Nero the artist and popular provider—almost certainly the way in which he would have wished to be remembered."

If Shotter is right, why did Tacitus and Suetonius write so disparagingly about the Domus Aurea? Why castigate Nero altogether? Who started this historical pile-on? How did it go viral? There are several culprits, but Drinkwater and others blame the Flavians first.

The year following Nero's death in A.D. 68 is known as the Year of Four Emperors, which tells you most of what you need to know. After much turmoil, Vespasian, the first of three Flavian emperors, took control (Vespasian was followed by his two sons, Titus and Domitian). Before them, the empire had known only one ruling family. Augustus founded the Julio-Claudian dynasty in 27 B.C., and it lasted for almost 100 years, until the death of Nero. The Julio-Claudians stood for stability. For legitimacy. They stood, in short, for Rome itself.

GIVEN ALL THE HORRENDOUS THINGS NERO WAS ACCUSED OF DOING, IT'S BIZARRE THAT MUSICAL COMEDY RANKED SO HIGH ON HIS LIST OF CRIMES.

<

Still commanding attention, Nero is captured in Anzio by Claudio Valenti's noble 2010 statue.

"The Romans were descended from Aeneas of Troy, and Aeneas was the ancestor of the Julio-Claudians. So history would come to an end when this dynasty ruled Rome and ruled the world, because Jupiter said so," says Drinkwater. "That works very well while the dynasty is going, but what happens when it stops? How do you transfer all that credit from one dynasty to a totally different family?

"The amazing thing is, the Flavians managed to pull this off, but one way to do this was to destroy the memory of what came before. So they said that the Julio-Claudians were worth displacing because they had become corrupt. And the more you can denigrate them, the better. The anti-Neronian tradition came into play very quickly. When Tacitus and Suetonius came along later, they were working within a tradition of historiography that had already been well established."

Which brings us to the Christians, who added their own grievances to the Nero-bashing narrative. It must be conceded upfront: Nero did kill Christians. Simmering public resentment over the Great Fire put enormous pressure on the government to find a scapegoat. Early accounts make it unclear whether Christians were persecuted for their religious beliefs or simply as an outsider group—Drinkwater says the latter—but they were easily framed for arson. Whatever he was up to, Nero wasn't trying to stamp out the nascent faith, which, at this point, was taking shape more in the Middle East than in Rome.

The Christians whom Nero did kill were never thrown to the lions before a crowd of baying spectators in the Colosseum, as the story goes. For one thing, the Colosseum wasn't even built yet. More to the point, from what we know, Nero had little taste for the kind of blood sport we associate with popular Roman entertainment. As a philhellene, he would much rather watch a good chariot race than see two armed men slice each other up. When protocol demanded that he show up at gladiatorial games, Nero is said to have remained in his box with the curtains drawn. He took some

CONTINUED ON PAGE 72

IT IS HERE. AND IT IS HUNGRY

A VORACIOUS, SHAPE-SHIFTING INSECT NATIVE TO ASIA IS ATTACKING CROPS, VINEYARDS AND TREES. CAN SCIENTISTS STOP THE SWARM?

BY **JEFF MACGREGOR** ≡ *PHOTOGRAPHS BY* **MARC MCANDREWS**

The spotted lanternfly has landed. This adult was seen in Pennsylvania, hard hit by the alien species.

E**VERY DAY THE NURSERYMAN** rises and prays and walks the rows of his trees. Redbud and sweetgum, chokecherry and crabapple, hornbeam and plum. Maple. Weeping willow. Poplar. *Acer rubrum*. *Salix alba "Tristis." Liriodendron tulipifera*. Armstrong. Niobe. Little Volunteer. The names are an incantation. Here in the rows it's peaceful, just enough shade to ease the heat. There's birdsong and the breeze in the leaves and you can hear your footsteps one to the next to the next. There's a creek down in the bottoms and the place smells of flowers and sweet water and clean earth. If you look straight up you see the blue sky. You feel the world fall away. It is a pretty place.

But Don Eaton is in trouble. Real trouble. Eaton Farms is surrounded.

Don Eaton is a big man, a tall man, wide and high as a doorway. Late 50s, sandy hair going gray, big handshake. Smart.

Big ideas. Big faith. Been a grower a long time. A born farmer. The footer on his emails nods to the Bible, the Book of Luke, "Keep your hand on the plow."

Pennsylvania nurseryman Don Eaton, with son Seth, says lanternfly-related expenses are soaring. Inspections alone cost his firm an additional $75,000 yearly.

LANTERNFLY IS A DETECTIVE THRILLER AND A *HORROR MOVIE.*

He started this place with his father. Now he works the farm and the business with his wife, Kathy, and their six children, all of whom live near enough that the 16 grandchildren are around too, helping in the potting shed and whooping and chasing each other through the rows.

"Our average production schedule today is probably at 48 months," he says. "That means I have to plant four crops before I get to sell the first one. So trees are capital intensive. It's a high-risk crop because there are threats. But the profit margin is there.

"Over my 35 years, I've watched the industry go from independent garden centers, who were and are still my customer base, to where 85 percent of the market is now with mass retailers." Eaton Farms does not sell to the big chains.

In 2010, after the recession, Don saw a business opportunity. He used to grow what he describes as "A to Z"—shrubs to perennials and trees. That year, he explains, "I went 100 percent trees and topiary as a strategic long-term move, which we're enjoying today." He also started Bower & Branch, the family e-commerce enterprise. "I told my kids, all six, that are actually the owners now, that they shouldn't plant another tree" unless they had a direct connection to retail customers. His daughter Laurel now manages Bower & Branch.

This is over in Leesport, Pennsylvania. Southwest end of the Lehigh Valley, just up from Reading. Not far from Philadelphia. Berks County. Ground zero.

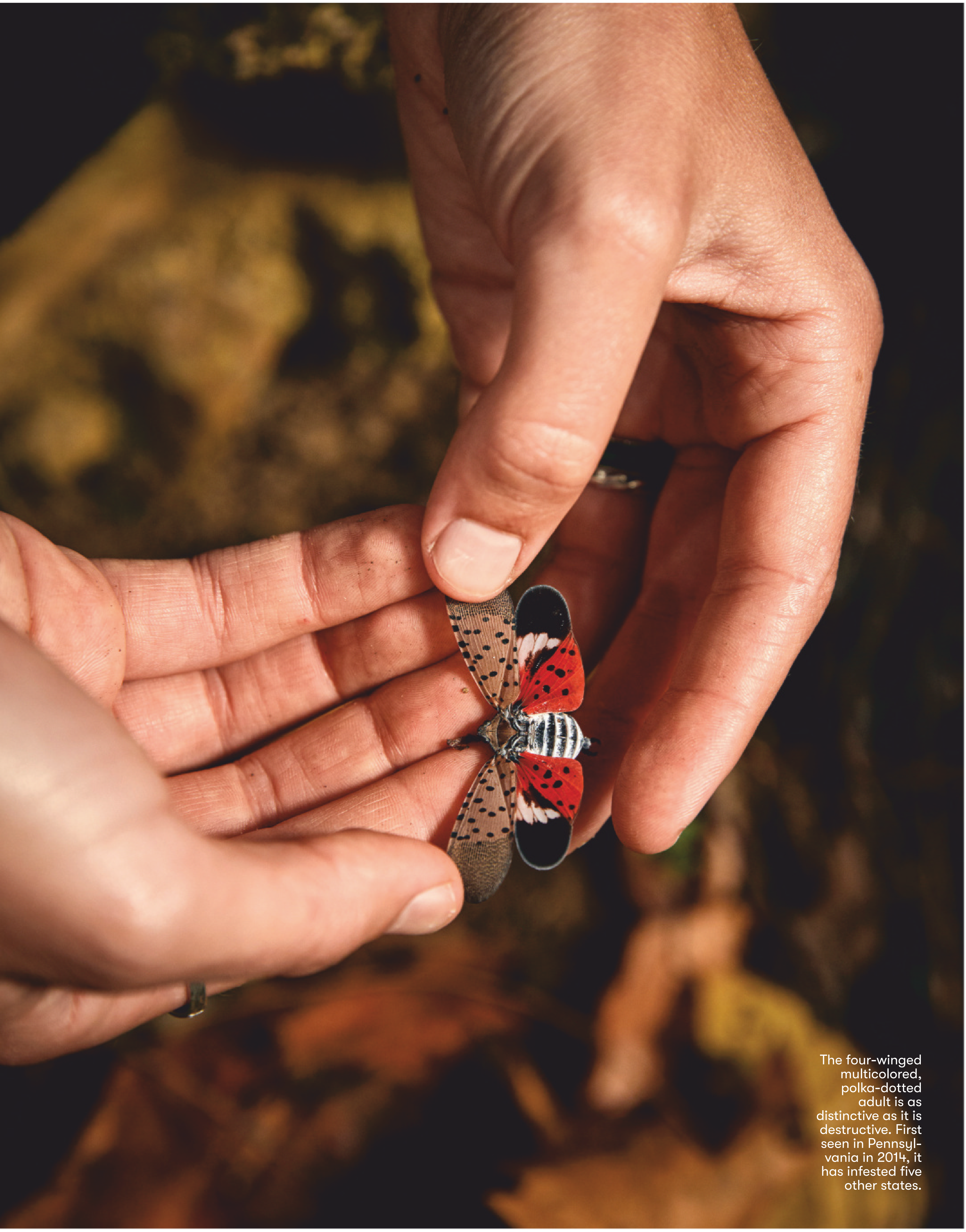
◆

THEY FOUND THE FIRST spotted lanternfly on September 22, 2014. Found it in Berks County. Just a few miles from Eaton Farms.

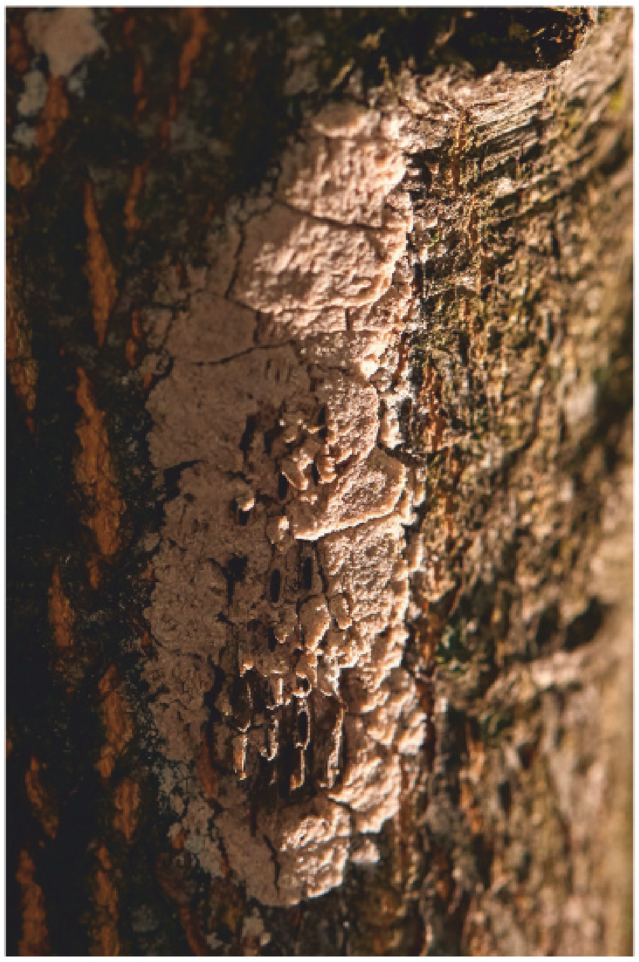
"It's a day you don't forget." Dana Rhodes is the state plant regulatory official for the Pennsylvania Department of Agriculture. "Our entomology team received a phone call from an employee with our game commission. They had heard us advise, 'If you see something unusual, give us a call.' They noticed a smell and a lot of insects around some tree of heaven. Three of our team went out there and found spotted lanternfly."

Spotted lanternfly: *Lycorma delicatula*, ruinous and beautiful, the size of your thumb and a destroyer of worlds. Spotted wings, often a silvery blue-gray, a sort of iridescent gunmetal, with a bright red-orange flamenco petticoat beneath. In every stage from nymph to adulthood, this is a stunning bug. Below-average fliers, but decent gliders and hoppers.

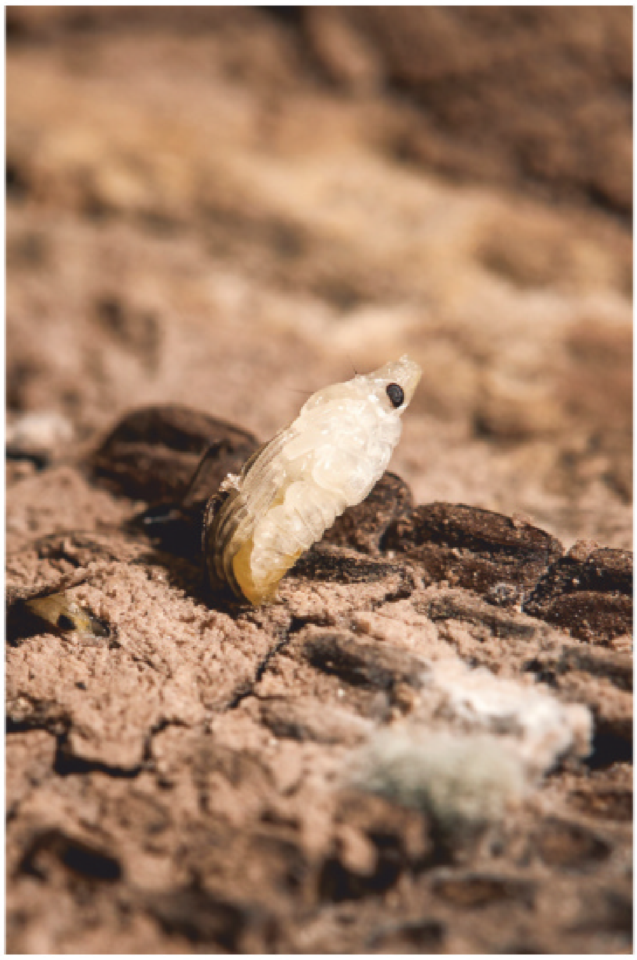
To feed, they unfurl their mouth parts and penetrate the phloem, or vascular tissue, of the tree or vine. They drain nutrients from the plant, and excrete sugar water. This they can do by the thousands or tens



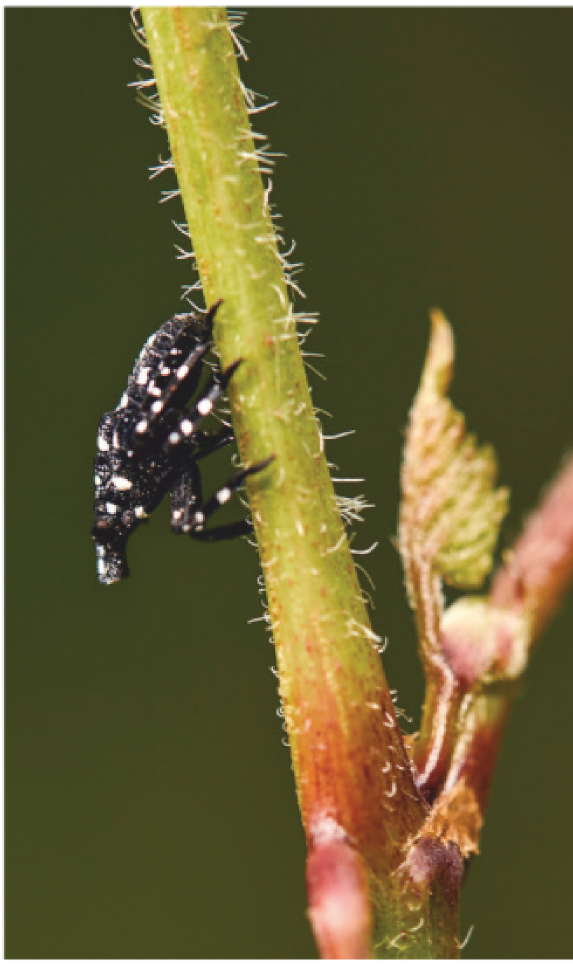
The four-winged multicolored, polka-dotted adult is as distinctive as it is destructive. First seen in Pennsylvania in 2014, it has infested five other states.



① **GENERATIONS**
From September through November, a female lays one or two egg masses, each containing 30 to 60 eggs, which she covers with a puttylike substance. A heavily infested tree might spawn 12,000 flies.



② **EMERGING**
Eggs hatch in spring, yielding the first of several wingless, immature nymph stages. This instar phase starts out white, then darkens and forms a spotted exoskeleton, reaching a quarter inch.



③ **RAVENOUS**
Between molts, in June and July, the next-stage instar is an aggressive feeder, piercing newly sprouted leaves and stems with specialized mouthparts to gorge on sap.

Growing Threat

From the moment it hatches, the spotted lanternfly feeds on a vast range of plants—and has no natural predator in the U.S. • **by Teddy Brokaw**

of thousands. Lanternfly feed most successfully on another invasive from Asia: *Ailanthus altissima*.

Tree of heaven.

Even in tony suburbs like Lower Merion, outside Philadelphia, the bug covers the trees. Stand at the foot of a mature maple when lanternfly are feeding and you'll be showered in "honeydew," the sugar poop that destroys the forest floor, the understory, with reeking sooty mold stinking of vinegar and molasses. Lanternfly can kill a tree outright, or stress it to the point where it dies over time. Same for hops and grapevines and fruit trees. Billion-dollar cash crops. Like locusts or the European gypsy moth, spotted lanternfly is a genuine threat.

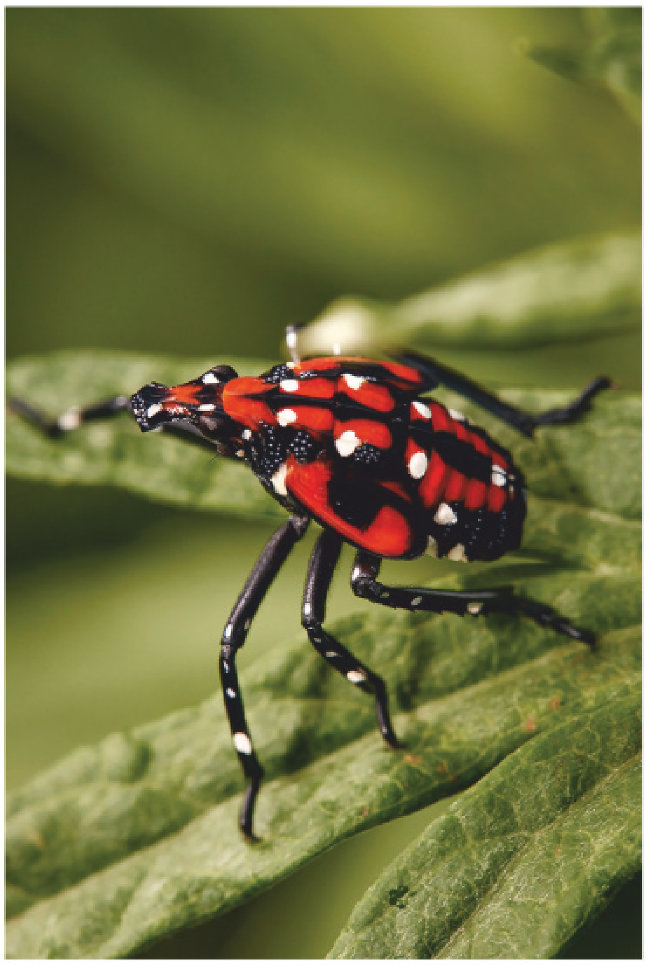
Since its introduction to the United States in 1869 as part of a scheme to increase silk production here, the gypsy moth has defoliated tens of millions of acres of American forest. In 1989 alone, it stripped bare over 12 million acres in the Northeast. And while most hardwood trees bounce back even after a major infestation, many are weakened, made susceptible to disease, and eventually die.

From destruction caused by foliage feeders like the gypsy moth to tunneling insects like the emerald ash borer, losses to cash-crop forests already run in excess of $2 billion a year in the United States. Costs to residential landscaping and property values are also climbing.

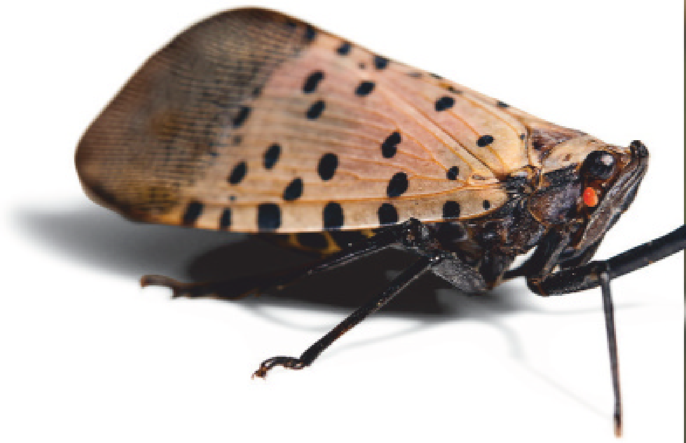
In fact, the spread of pests and pathogens damaging plant life could cost global agriculture $540 billion a year. U.S. farm output alone is a more than $300 billion-a-year business. Whether you're talking about the Asian longhorned beetle or the diamondback moth or more than a thousand species of termite, the cost and effort to mitigate and repair the damage they cause is astronomical and constant.

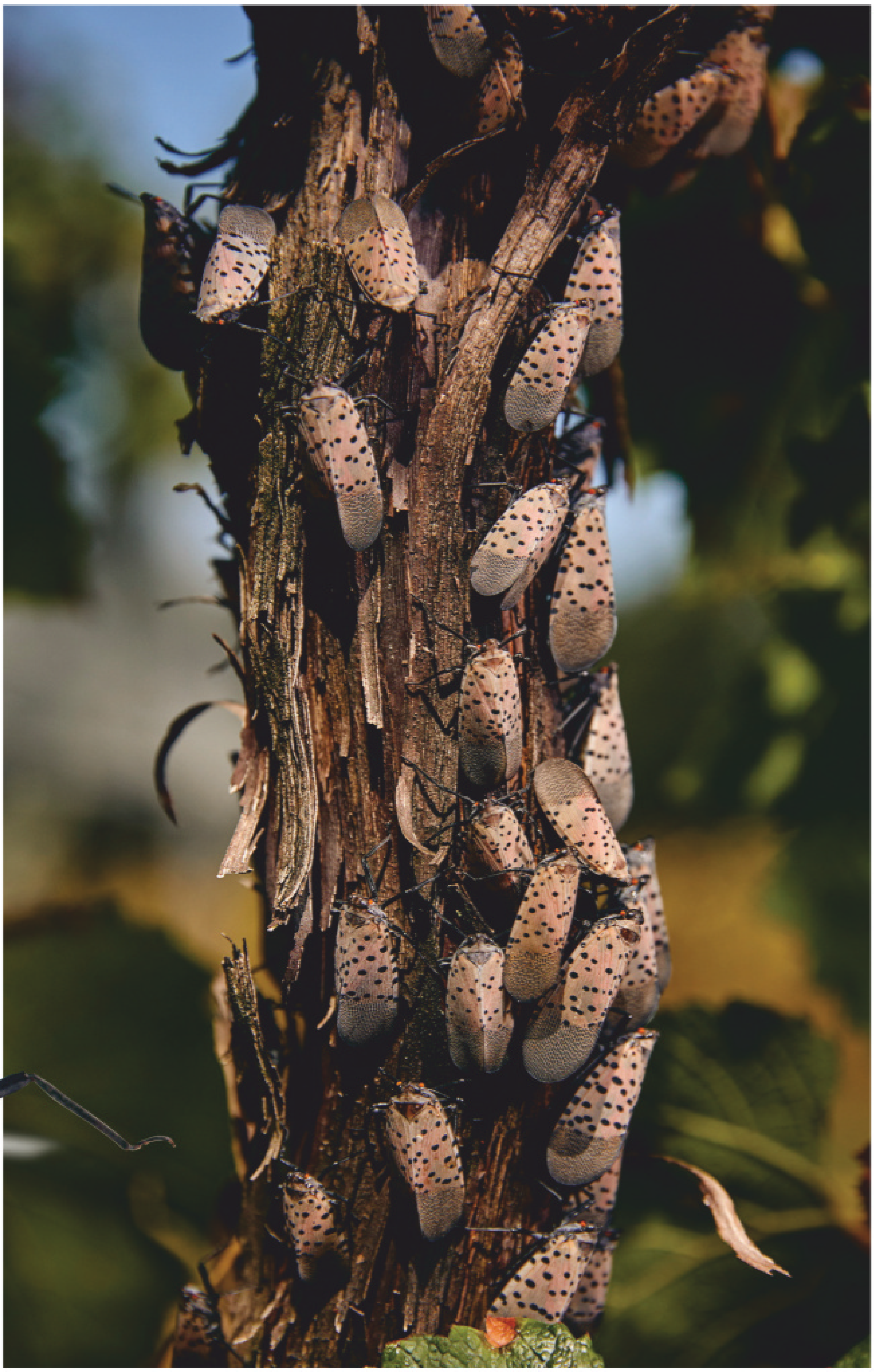
The U.S. Department of Agriculture pest management budget is north of one billion a year, some of which goes to the USDA Integrated Pest Management Program, which encompasses research universities, extension services and county agents. There's a worldwide battle being fought in silence from one end of the planet to the other. Make no mistake, this is war.

Gypsy moths blanket New England. Khapra beetle, a grain eater as devastating as any in history,



④ DEVELOPING
In the fourth and final instar stage, the insect has grown to about half an inch long, adorned in red. It can penetrate tree bark and feed on a tree's vascular system.





⑤ FULL-BLOWN
Adults appear in July, often swarming on trees, utility poles and other structures. Despite large, tent-shaped outer wings, they are poor fliers and mostly hop from place to place. Red-colored hind wings serve to startle predators.

is being seen more and more in warm weather climates from Arizona and New Mexico to Oklahoma and Texas. Spotted lanternfly is so far found mostly in a relatively narrow band concentrated in the Mid-Atlantic.

And here's just a partial list of trees spotted lanternfly might feed upon: almonds, apples, apricots, cherries, maple, oak, pine, nectarines, peaches, plums, poplar, sycamore, walnut, willow, and on and on and on. More than 70 possible food sources have been identified so far, and we still don't know everything on the lanternfly menu. But we know some of the à la carte prices:

Apples—in 2018 the United States produced 10.2 billion pounds of apples, making the crop a $2.9 billion a year business.

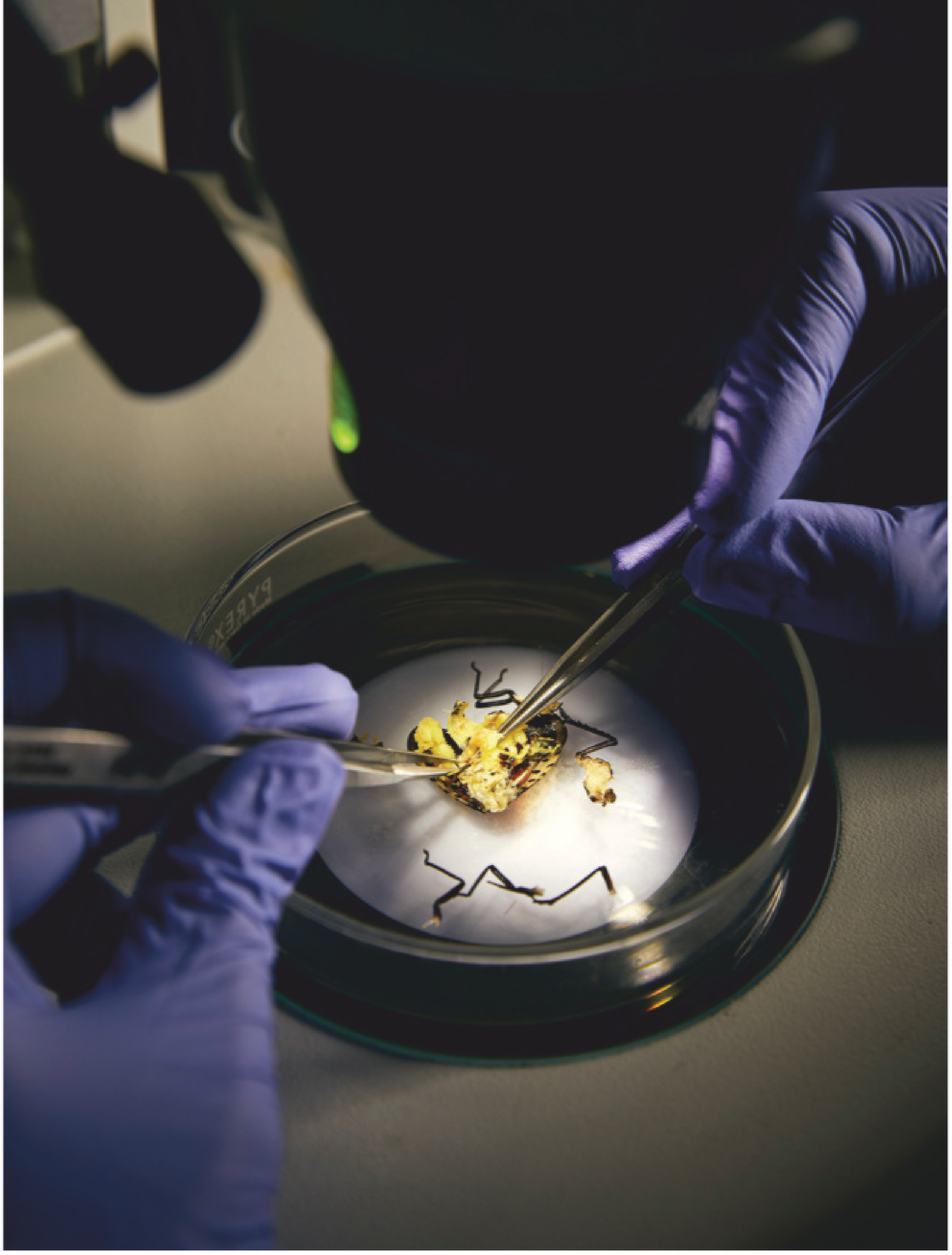
Hops—$600 million a year.

Grapes—valued at a whopping $6 billion annually.

Lanternfly? They'll lay waste to a whole sector of your economy, then lay eggs in your Christmas tree. The Original Gangster. Read across the warnings and alerts from Georgia to Tennessee to Wisconsin and the news is the same: Be Vigilant. We don't know enough about the bug, but what we do know is chilling. For ag-based businesses not only in Pennsylvania, but in every corner of America, lanternfly is a detective thriller *and* a horror movie. A stranger in the darkness.

* * *

MAYBE THEY GOT HERE on a load of decorative stone from China. That's the story you hear, but no one knows for sure. They invaded South Korea a few years ago. Entomologists are in the woods right now trying to learn how to fight a pest we know too little about. Researching defenses like circle traps and sticky bands, which are exactly what they sound like; working on the life cycle of the bug and how it moves from one food source to another as it ages; studying lures and bait trees that might draw lanternfly off the grapevines and out of the orchards; looking for the natural enemies preying on lanternfly. Of which there are too few in North America. There's a promising fungus that makes a "zombie" of lanternfly, takes over its brain, tells it to climb to the top of a tree, then binds it there to send out the fungus' own spores. But it needs to be studied. "I'm out there every week talking to growers," says Heather Leach, an entomologist at Penn State. "Inevitably somebody asks, 'What's new? Is there anything else I can spray? What have you figured out?' They're really stuck between a rock and a hard place right now."



A Penn State researcher dissects a female lanternfly to obtain eggs. The animal's reproductive biology offers a promising focus for scientists.

Homeowners, she says, are a different story. The lanternfly poses a major threat to everyone's backyard trees and gardens. "Getting sugary poop dropped down on their cars. Getting insects crawling into their house if they're on the back patio door." These are the first ominous signs. So Leach and her colleagues have set up a lanternfly call center.

No one is sure how many lanternflies there are in Pennsylvania right now. Or where they are. A billion or more. You can kill them with pesticides. But you have to find them first.

Leach spends hundreds of hours on the road going from grower to grower and test site to test site. In between, she delivers educational talks to the public. Awareness is a weapon, the first line of defense. She works with Julie Urban, whose office and lab are back at Penn State. Julie is an associate research professor in the department of entomology, specializing in planthoppers.

How much more does Urban know about the bug than she did five years ago?

"A lot," she says. "As nymphs they'll spread out and eat really anything, has to be tender, herbaceous." She also knows that as fourth instars—the red stage—they tend to move on to woodier things. Black walnut. Tree of heaven. If those favored targets are not around, they'll continue on to something else.

It was 2017, Urban recalls, when she first observed how big the population was. "We kept seeing things that would just make your stomach drop—it was that much worse than we thought." She and her graduate students recorded the mass attacks on video. In one vineyard they had been monitoring, lanternfly had been "hanging out in the grapes. We'd been working in that vineyard for the past two years, and there's apple in that same orchard and they never were on the apple, ever. That's when they started flying around, and people reported swarming behavior: 'They're flying into the Walmart.'" Grad student Erica Smyers called Urban. "They're on the apple," Smyers reported. "They're hitting my car." Urban drove to the scene. "They're covering the apple trees, feeding as they go," Urban remembers.

Urban oversees a lab where's she's trying to grow enough lanternfly to study. Because of the insect's relatively slow reproductive cycle, and the difficulty of keeping them fed, even breeding for experimentation has proved difficult. She's part of what has become a humming nationwide network of entomologists and departments of agriculture, universities and state resource management offices, lumber operations and hops growers, vineyards and vintners, nurseries and tree services, orchardists, foresters, gardeners and farmers.

In its way, this is the lanternfly Manhattan Project.

Hoping to control the pest and reduce its economic toll, researchers at Penn State test lanternfly DNA, looking for genetic clues to its vulnerability.

Graduate student Erica Smyers and evolutionary biologist Julie Urban confer in a lanternfly quarantine cage. The insects are surprisingly difficult to breed in captivity.

* * *

ALEX J. ROWLAND RUNS Penn State's Lanternfly Call Center. Ten operators sit in carrels taking incoming reports from citizens around the state. "Average day? Right now we're at 50 calls, and it's 11:30," Rowland says. "That's pretty average. We do have crazier days. Six people on the line, with three, four backed up in the queue. That's a heavy day."

How many calls a week?

"Roughly a thousand a week. Fluctuates anywhere from 500. We had 1,400 one week."

The calls range from the short and sweet, people who already know that they have lanternfly, and want to report updates so the Pennsylvania Department of Agriculture gets current information. Three, maybe four minutes. For people who have never seen them before, longer calls. Wanting to know what the best pesticides are, what damage the insects might to do to the house, what crops are at risk, what this could mean for property values.

Martin Kubek grows grapes on a hillside in Lower Milford, Pennsylvania, 175 miles to the east. Hobby operation, maybe an acre and a half. Picturesque. Tidy. Kubek has done a crazy thing. He has invited Penn State to put lanternfly on some of his vines. "Somebody's got to do something," he says. "Here we have an invasive species that could destroy all grapes in the Eastern U.S. And what are we doing about it?" Kubek decided to offer his grapes—"some riesling that I'm not crazy about"—as a test plot.

A Reading, Pennsylvania, homeowner takes drastic steps to destroy a mass of lanternfly eggs.

So in the neat rows of leafing plants, more than a dozen mesh enclosures hold different numbers of lanternfly on individual grapevines. Forty here, 200 there. This to find out how many insects it takes to damage a plant—or destroy it. At the base of each plant, a sensitive electronic dendrometer has been installed to measure the bug's destructive drain on the interior pressure of the plant. Healthy plants not only draw moisture and nutrition up from the soil, but send nutrients down to their own roots across the growing season. Lanternfly interrupt this cycle, as they do in trees, by tapping into the plant's plumbing. This can kill a plant outright, or leave it so stressed and wounded that it can no longer produce fruit. To replace a grapevine means a grower might have to wait five extra years before the new vine makes cash-quality wine or three years for table grapes. Every dead plant may represent a half-decade loss to the bottom line.

While visiting Kubek one day, Leach was asked by a local newspaper to characterize grape growers' lanternfly concerns. "They're extremely terrified," she says.

* * *

FORESTS BLANKET the green hills of the Lehigh Valley, crosshatched by a patchwork of vineyards and wineries. Talk to John Landis, gray-haired and serious over at Vynecrest, who lost many productive plants to lanternfly last year and expects to lose more this year. They come out of the tree line in clouds and settle on his grapevines until the black mold is thick on the ground—and it gets worse as the humidity rises. Or Rich Blair up at Setter Ridge Vineyards, where the bugs are so dense they drive the customers off the patio. "They're sucking the life out of my vines," he says, looking you straight in the eye. You hear that phrase again and again. Sucking the life out of the vines. Over the hill, Calvin Beekman lost something like 40 acres of grapes, and people talk about him now in whispers.

Lanternfly is a threat to every ag business in

Outside Hellertown, a construction worker inspects an excavator for lanternflies. The insects can attach to all kinds of surfaces, including metal.

≫ In an ecological one-two punch, lanternflies attacking this tree left behind a sap residue that, in turn, attracted the black fungus coating the leaves.

Researcher Lauren Briggs of Penn State Extension collects specimens in a park in Hellertown, Pennsylvania. >

“ALL OF THE SUDDEN WE’RE SEEING BUGS FALL ***OUTTA THE SKY***.”

Pennsylvania. Laurel Eaton Keppley knows this all too well.

At first, she says, the family put in place a labor-intensive inspection and treatment process. "We had to touch every tree multiple times. We had a checklist system, the orders were getting pulled and we would inspect for lanternfly and remove them. We would bring the trees to a staging area and do a spray on the order. Then we wouldn't touch the order for 24 hours. And then we would inspect it, I think two more times after that, to make sure we weren't sending anything out."

Then the deluge. "All of a sudden," she recalls, "we're seeing bugs fall out the sky and hitting the windows and collecting on door frames, and on the maple trees."

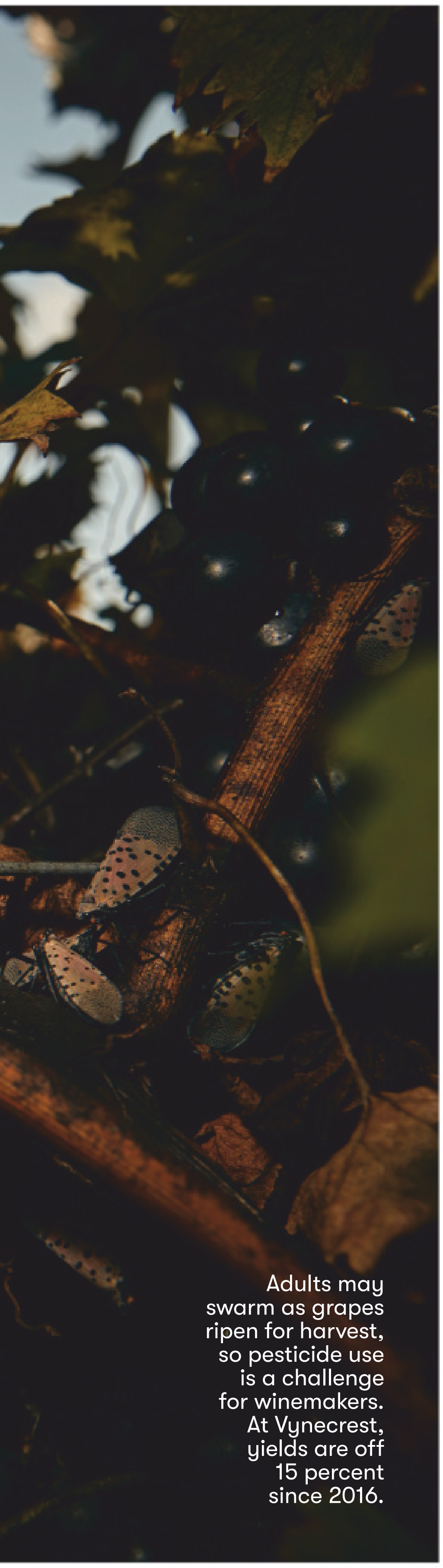
The Eatons devised a lanternfly protocol guide they have shared with other nurseries. They offer field-tested advice—"This is what worked for us. This rotating schedule of pesticides," Keppley explains. For several years now, the Eatons have avoided a toxic option—neonicotinoids, a more effective class of pesticide, but environmentally damaging. "Kills the bees and everything," she says.

The grape industry, she acknowledges, has it even worse. "I read stories of them losing entire crops. We can spray 24 hours before we put a tree shipment on a truck. On the grapes, it's a bigger window that they have to stop spraying before they harvest.

"Even so, fending off the lanternfly has taken its toll," Kep-

The lanternfly poses a threat to Eastern U.S. grape growers. Vynecrest Vineyards & Winery is a 25-acre operation in Breinigsville, Pennsylvania.

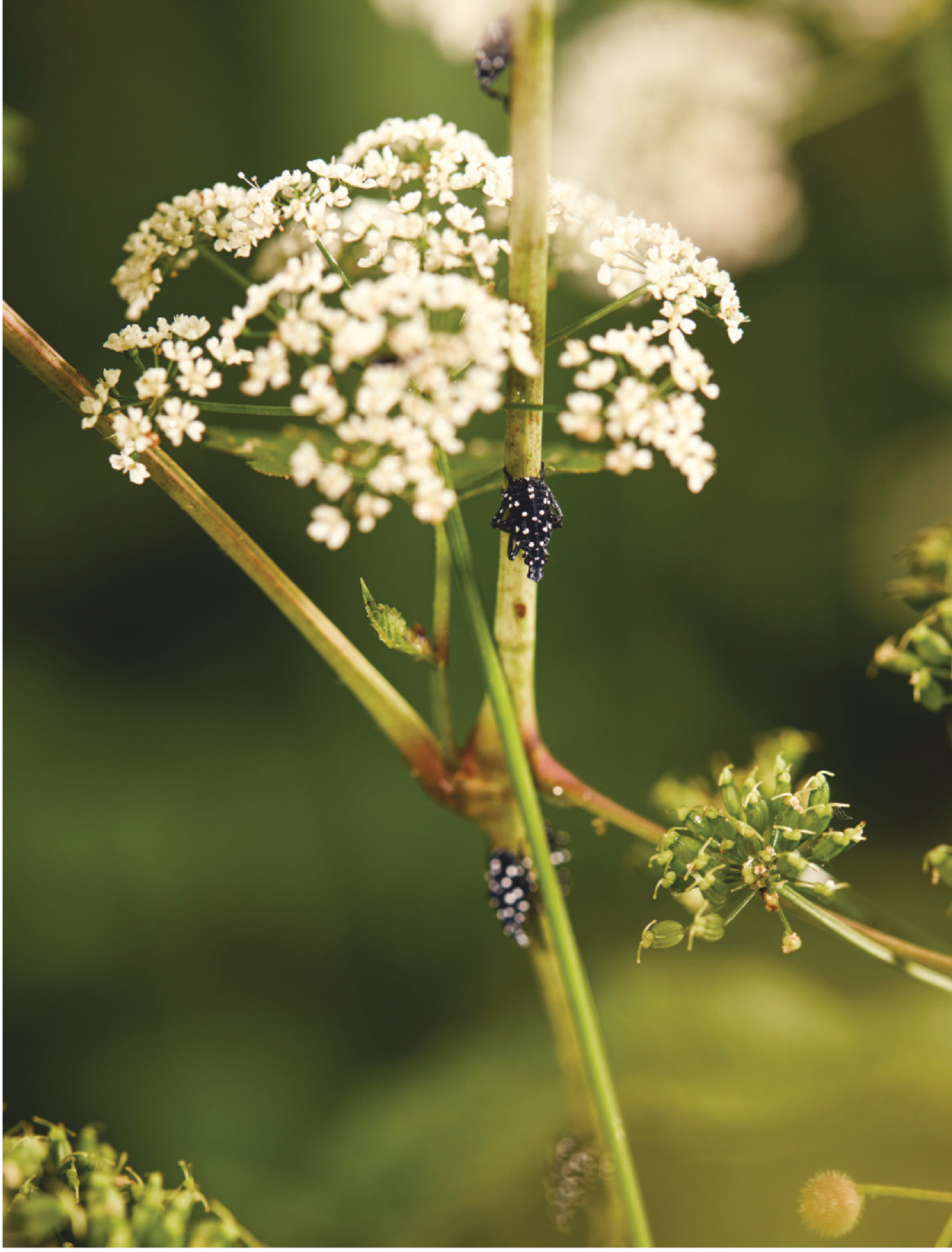
“This is the most challenging thing I’ve experienced in 50 years,” John Landis, the vineyard’s owner, says of the infestation.



Adults may swarm as grapes ripen for harvest, so pesticide use is a challenge for winemakers. At Vynecrest, yields are off 15 percent since 2016.

pley says. “It has been stressful. There’s this constant threat of states shutting us down by not allowing us to ship into their state, which they can do. We cannot let a live or a dead spotted lanternfly get through. It’s very disheartening. And exhausting. We have to stop our lives and just make up whole new protocols, spray schedules, pest management schedules, and more paperwork and record keeping. We have to keep records for trees that are inspected, I think for three years. It’s just making business a lot more difficult. It makes you pause and say, ‘Is this worth the fight anymore? Or should we just give up and walk away?’ ”

Don Eaton insists that the family can beat the lanternfly invasion. “My dad is an eternal optimist,” Keppley says. “He sees opportunity everywhere. ‘We’re going to push through,



Lanternflies (third-stage instars) feeding on wildflowers in Pennsylvania. Sightings of the insect there have increased fivefold since last year.

Penn State entomologist Heather Leach, here addressing a community group, drove more than 20,000 miles in her outreach efforts last year.

make up a protocol, empower other nurseries to be ready to deal with this.'"

There's more at stake for Don Eaton than money. Not only profit and loss, but stewardship. A renewal of balance and restoration of a natural order. He's partnered the farm with the Audubon Society to restore native trees to the landscape and with them, native birds. "My job may be to make people aware that we may be out of balance—and we are part of the balance."

Still, he admits, costs are mounting as he fights the lanternfly. "I estimate last year maybe $150,000 of real costs put to the pest. Last year I lost maybe half a million dollars to customers who were afraid to buy from us because of our location."

Eaton was already beginning to think the unthinkable—closing the family nursery business. Then Covid-19 struck. "Our customer base—independent garden centers—are located in New Jersey, New York and Massachusetts," he says. "All of them, at the center of Covid, had to close down. We lost 30 percent of our prebookings. New business coming in from March, April and May, 10 percent of normal."

* * *

THE LEHIGH VALLEY is a transit hub for the entire Eastern Seaboard, a tangle of interstates leading to other interstates that carry freight from Maine to the Carolinas. Stand in a hillside vineyard anywhere on the Lehigh Valley Wine Trail, look down and you'll see mile after mile of warehouses and fulfillment centers, transshipment yards and truck lots.

As this article goes to press, spotted lanternfly infestations have been found in Pennsylvania, New Jersey, Delaware, Virginia, West Virginia and Maryland. Internal quarantines have been instituted in most affected areas. The wall goes up.

But there's tree of heaven along almost every highway and railway in America; the lanternfly egg mass can be cemented to anything; and the living bug can hitch a ride on everything moving. Trucks, trains, ships, cars. Airplanes.

Ethan Angell is field operations manager for the division of plant industry at the New York State Department of Agriculture and Markets. In 2018, Angell and his colleagues partnered with the New York State Department of Environmental Conservation to develop a response plan, to prepare New York if and when spotted lanternfly arrives. "One of the things that we learned from Pennsylvania is that the public was very good at recognizing spotted lanternfly," he says. New York also instituted checkpoints for trucks coming into the state from areas where lanternfly has been documented. "That gave us an additional tool to try and prevent spotted lanternfly from entry."

Amy Stone is an agriculture and natural resources extension educator with Ohio State University. She's up in Toledo, and has been working with the group fighting the emerald ash borer invasion in Ohio since 2002. She's getting ready.

"We have a Great Lakes early-detection app that we have been promoting for people to report invasive species," she says. "Now we're trying to really ramp that up." They are asking people to report locations of tree of heaven. Those data points will become sites that researchers will scout and monitor. "Any citizen in Ohio can participate, where they adopt an *Ailanthus* and weekly go out and visit that tree, looking for signs and symptoms of the spotted lanternfly."

Do you have confirmed lanternfly in Ohio yet?

"We do not."

In Michigan, Robert Miller is with the Department of Agriculture and Rural Development, specializing in invasive species prevention and response. "To date," Miller says, "we have no evidence of spotted lanternfly in Michigan." One of his biggest concerns is grape growers. They would be the hardest hit. "And in Michigan we have both juice and wine grapes."

Miller worries, too, about everyone else. "For the general public, this is going to be a nuisance pest. Feeding on street trees, trees near their homes, trees in their parks, maybe other vegetation in the yard. Spotted lanternfly can feed on many things, from roses all the way to black walnut and everything in the middle."

And, on top of everything else, he says, there's the sheer unpredictability that could accompany an outbreak. "We're not really sure how spotted lanternfly is going to act in the state of Michigan," he says. "We're a little bit farther north, we have less tree of heaven, our climate's a little different. What impact are the lakes going to have, or our landscape, or our different species? We just don't know."

Michigan, Miller says, has assembled a spotted lanternfly response group, consisting of staff from his agency, along with the Michigan Department of Natural Resources, the USDA and entomologists from Michigan State University.

"We're working to develop the playbook," he says. "Who's on the strike teams, who's on the survey teams, how will we communicate with each other? Those sorts of things."

Grapes. Hops. Lumber. Apples. Stone fruit. Entire agricultural sectors at risk.

◆

THE NIGHTMARE SCENARIO, of course, is that the bug would start to show up in California, the $50 billion-a-year engine of American agriculture, and one of the world's greatest wineries. That's the last 15 minutes of the horror movie. How it turns out is up to us. Because for a gifted hitchhiker like lanternfly, the question is not really *if* but *when*.

Nick Condos is division director of the plant health and pest prevention services division in the California Department of Food and Agriculture.

"I don't know if you've ever driven into California, but we have border protection stations. We're screening passenger vehicles and commercial shipments," he says. "The spotted lanternfly has been on our radar for several years now. Fortunately, it's also in a part of the country where the gypsy moth is endemic." There is a national policy in place to prevent the movement of gypsy moth. “Spotted lanternfly lays its eggs on very similar things that the gypsy moth will lay its eggs on. We already had some built-in protection because of the existing gypsy moth quarantine. That’s been very beneficial.”

What that amounts to is a pretty good approach for keeping the lanternfly out. “No other state can do that,” Condos says. “We’re unique in that regard. We have a pest-prevention system in place designed to protect us from pests that we don’t even know are pests yet, and pests that we know are pests.”

He’s well aware, too, that California faces a dual entry challenge. “If the front door is our international ports, and the back door is our land borders with other states, it can still come in through the front door, because it’s endemic to Asia. Obviously, we’re the gateway to trade with Asia. I worry that it could come from Asia, or that it’s already here, just unbeknownst to us.”

At the University of California, Riverside, Mark Hoddle, extension specialist in biological control, is researching bio-interventions to deploy against lanternfly. “We are beginning a biological control program targeting spotted lanternfly in advance of anticipated arrival in California. This hasn’t been done before: We are taking a proactive approach to a threat.”

UC Riverside is collaborating with the USDA Beneficial Insects Research Introduction Unit in Newark, Delaware. Scientists there, Hoddle says, traveled to the native range of spotted lanternfly, which is China. “And in China they have found a parasitoid that attacks the eggs of the spotted lanternfly.” Researchers including Hoddle are evaluating the parasitoid for possible release in California. “Even though these parasitoids are classified as wasps,” he says, “they fall under a generic term that encompasses a lot of Hymenoptera. They are so tiny, you would probably never see them. They would never sting people and won’t chase your household pets around. They present no threat to children either.”

“WE ARE TAKING A *PROACTIVE APPROACH* TO A THREAT.”

Given the state, local and national apparatus and organizations already in place, California’s Nick Condos is cautiously upbeat. “I am fundamentally optimistic for the long term, but slightly pessimistic in the short term.” At the moment, even as researchers are working flat out to understand and counteract the threat, simple lures and traps remain the available first lines of defense. “Without the ability to find a bug, you have no ability to eradicate it,” he says. “I’m not talking about Covid-19, but it’s the same issue. If you don’t have a test or a lure, you don’t know where your target is, you can’t aim at it.” Next come traps: Once lures enable scientists to detect a population large enough to be noticeable, the pest has often moved on. Because the lanternfly is “always one or two steps ahead of you,” Condos says, “traps are key.”

Condos is also encouraged by the potential for parasitoid introduction. “Getting that bio-control agent up and running, super-important. It takes the pressure off the growers from having to use pesticides, which are expensive.”

Inevitably, as things stand now, Condos says, lanternfly will continue to advance.

Despite one false alarm, there have been no live sightings of spotted lanternfly in California.

Yet.

* * *

IN THE LONG MAIN ROOM of the 18th-century Washington inn at the historic village of Yellow Springs, Pennsylvania, 50 or so worried homeowners, gardeners and growers from around the state have gathered for one of the Penn State Extension lanternfly information sessions. This is last fall. Good turnout. Attentive. Heather Leach delivers her talk, calm and cheerful and reassuring. What and where, botany and entomology, strong visuals. The stages and seasonal timeline of the insect, circle traps and sticky bands, how to spot lanternfly and the egg masses and report in to the call center.

BYLINES
Smithsonian writer-at-large **Jeff MacGregor** recently reported on haunted Ozarks history.
Photographer **Marc McAndrews** grew up in Pennsylvania. This is his first *Smithsonian* article.

Scientists can't predict where the invaders will strike next. But one nightmare scenario is California's vineyards—the fourth-largest global wine producer.

We're ten miles from Valley Forge, and the resonance between the battle fought then and the scientists on the front lines now is uncanny. She is optimistic. We can do this, she says. She speaks for 40 minutes or so. When she asks for questions, every hand goes up.

"If you've got a lot of lanternflies in a group, how do you kill them all?"

"Well, it depends," Leach answers, "on what you want to use and what you mean by a lot. You can take a fly swatter. Some people are using power washers or hoses to spray them down. They drown pretty easily. If you hose them down, you can kind of smash them with your foot. Or, you can use contact insecticides, which I suggest especially if you don't have very many, using something that doesn't have a strong residual. It's not likely to kill other insects visiting your tree. That can knock out lanternflies and kill them quickly."

It's coming on twilight now, the lights are up in the room and people are shifting in their seats or starting to stand. This is the 17th audience question. She'll answer a dozen more on her walk to the parking lot.

"What qualifies a species to be invasive, and is this just a natural process of evolution that we're seeing with the introduction of species across the U.S.?"

"Almost always, when they call a species 'invasive' versus just 'non-native,'" Leach answers, "it has some detrimental impact on the environment, our society, or our economy. Spotted lanternfly is all three of those. We're seeing devastation—money being lost, this huge nuisance problem and environmental aspects that are being degraded. That's why we call it an invasive species."

* * *

LANTERNFLY AND LANTERNFLY intervention protocols and the expense and the shipping quarantines and the business model and the regulations and the pandemic and the last recession and the next recession. These are the forces arrayed against Don Eaton. So for a long time he thought and walked and talked to his wife and his children, walked and walked in the rows of trees early and late, sun on the way up, sun on the way down, talking at the kitchen table and in the conference room, kneeling to pray at his bedside and talking to the bank and the county agent and Penn State and talking to the Department of Agriculture and talking to himself and

CONTINUED ON PAGE 76

The Last Quiet Places

TO THE ENDS OF THE EARTH

IN SEARCH OF THE HEALING POWER OF SILENCE

PHOTOGRAPHS
AND TEXT
BY **PETE MCBRIDE**

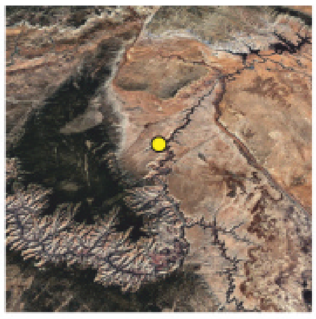
IT HAPPENED JUST BEFORE DAWN. The murmur of bat wings fluttered above me, somewhere within earshot. I lay among the rocks and realized, not for the first time, that my camera was wildly insufficient. In the moonless, inky hours before the sunlight creeps back in from the east, there is very little to see. All I could do was listen to these sightless fliers feeding above me in the stillness.

Having spent my career working as a photographer in remote, hard-to-reach areas, it took me nearly two decades to fully realize that the least appreciated and often the hardest gems to document are not the vistas I chase with still cameras, but the auditory elements that surround them. It was that blanket of calm—layered with the notes of wind, wings and scampering claws—that remained with me long after my pixels were processed.

On one assignment, involving a 750-mile trek through the entire length of

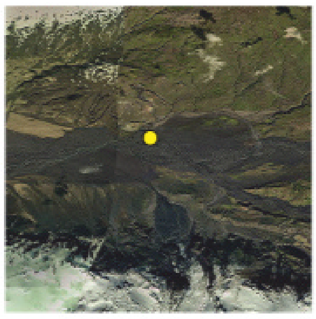
PREVIOUS SPREAD

Marble Canyon, Grand Canyon, Arizona, U.S.
Down on the mile-deep floor of the Grand Canyon, the stillness allows the subtlest natural sounds to emerge, from the call of a peregrine falcon overhead to the scamper of a scorpion underfoot. Rock layers tell their own story, revealing nearly two billion years of geology. But the serenity is no longer guaranteed. It is frequently broken by air tours. In 1999, Senator John McCain of Arizona introduced a law that helped cut down on this persistent source of human noise. But up to 400 flights still cross the canyon or fly below the rim each day.



MILES FROM NEAREST:
AIRPORT: **37,** Page Municipal Airport
MAJOR ROAD: **13,** Route 89
GAS STATION: **18,** Cliff Dweller's Lodge Gas Station
GROCERY STORE: **35,** Walmart Supercenter

Markarfljot River, Iceland
Although Iceland draws more than two million visitors a year, the population is a mere 357,000, and some 80 percent of the country is uninhabited. It's not hard to escape to the wild. The rushing, gurgling sounds of glacial rivers provide an especially valued tonic. The Markarfljot River is fed by the Myrdalsjokull and Eyjafjallajokull glaciers, and flows 60 miles to the Atlantic. It's one of many displays of energy and power that give Icelanders a deep reverence for nature.

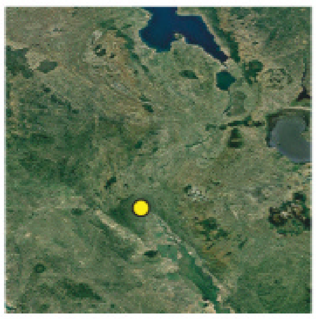


MILES FROM NEAREST:
AIRPORT: **93,** Keflavik International Airport
MAJOR ROAD: **11,** Route 1
GAS STATION: **19,** Orkan
GROCERY STORE: **19,** Kronan

MAPS: GOOGLE EARTH (6)

"Silence is the **think tank of the soul**. All religi

Majete Wildlife Reserve, Malawi
People tend to think of elephants, with their enormous bulk and trumpetlike calls, as loud beasts. In fact, their footsteps are surprisingly stealthy, and their habitats reverberate with sounds unheard by us. Much of their communication takes place between 1 and 20 hertz, low frequencies out of range of the human ear. But those signals help herds keep in touch with each other over distances as great as six miles. Elephants perceive these vibrations not through the air but through the soles of their padded feet.



MILES FROM NEAREST:
AIRPORT: **28**, Chileka International Airport
MAJOR ROAD: **13**, M1
GAS STATION: **13**, Puma Filling Station
GROCERY STORE: **26**, People's Supermarket

ons share and revere silence.”

the Grand Canyon, I'd set out to create a visual inventory of the wilderness, but after some 500 thirsty, thorny miles, I starting craving not more lenses but a better microphone. I wanted to capture the choir of croaking frogs, the rare applause of rain on rock, the hum of tarantula hawks, the echo of lambs bleating, the wind carrying a change in weather. It was all such a marked contrast from the usual noises that engulfed my life at home: traffic, trucks, lawn mowers, airplanes, construction sounds, portable music beats, my phone buzzing.

My craving led me to Gordon Hempton, a self-described acoustic ecologist. Hempton has spent nearly four decades capturing what he calls the planet's “jukebox” of natural sounds. He has recorded the music of insects and owls, mountain ranges and jungles, the rustling of prairie grasses and the echoing vibrations inside a log of Sitka spruce.

Hempton uses the word “silence” to describe what he's after, even though he isn't seeking a vacuum. He's looking for the soundscapes that emerge when human noise disappears—antidotes to the din of a mechanical, beeping world.

“Silence is the think tank of the soul,” Hempton told me softly during a Skype interview earlier this year. “All religions share and revere silence.” He warned that quietude “is and has been on the road to extinction for a long time.”

He has the data to prove this. In 1984, after Hempton had spent some years chasing silence, he identified 21 places in his home of Washington State (an area of 71,298 square miles) that were free of human-made noise for intervals of 15 minutes or longer. In 2007, Hempton reported that only three of those places on his list still fit that criterion. Today, he believes a natural silence longer than 15 minutes is rare in the United States and all but gone in Europe. Even remote wilderness areas and national parks are frequently crisscrossed by jets, shrinking the average noise-free interval to less than five minutes during daylight hours.

This noise pollution is harming animals. A study last fall at Queens University Belfast found that human-made sounds threaten the feeding, migration and communication of more than 100 species of mammals, birds, fish, reptiles and amphibians. But noise pollution is also bad for our own health. It can lead to high blood pressure, heart disease, heart attacks, stress and insomnia. In 2011, the World Health Organization

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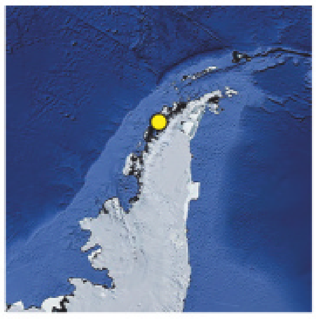
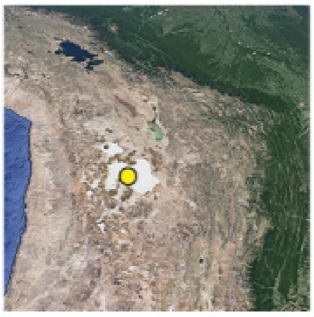
Graham Land, Fish Islands, Antarctica
When winds subside on the Fish Islands—the part of the continent closest to the tip of South America—there are moments of blissful peace, interrupted only by the occasional seal, Gentoo penguin or skua bird. Nonetheless, the industrialized bustle of far-away lands is becoming increasingly evident, perhaps even heard in the trickle of meltwater. The nearby Antarctic Peninsula is facing some of the highest temperature increases on the planet. The area has lost 163 billion tons of ice each year since 2002.



MILES FROM NEAREST:
AIRPORT: **731**, Ushuaia Airport, Argentina
MAJOR ROAD: **732**, Route 3, Argentina
GAS STATION: **730,** YPF Service Station, Argentina
GROCERY STORE: **716,** Supermercado, Argentina

“Silence is **the universal refuge**, the sequel to all

Salar de Uyuni, Bolivia
Perched at nearly 12,000 feet, this salt flat is the largest in the world. The ancient lake bed spans 3,900 square miles, so featureless that geophysicists have compared it to an ocean with no waves. While the visual expanse can be overwhelming, the silence is equally striking. The flats are visited by breeding flamingos and bands of salt miners, but they remain relatively untrammeled. That might change with growing global demand for batteries: Major lithium reserves are believed to lie under the salty surface.



MILES FROM NEAREST:
AIRPORT: **54,** Joya Andina Airport
MAJOR ROAD: **44,** Route 30
GAS STATION: **55,** Estación de Servicio
GROCERY STORE: **55,** Supermercado Exito

concluded that 340 million Western Europeans (roughly equivalent to the U.S. population) lost at least one million years of healthy life each year because of traffic-related noise.

Quietude, though, has been shown to promote the regeneration of brain cells in the hippocampus, which is key for learning, memory and emotion. Preliminary findings also suggest that it can be therapeutic for certain types of depression and dementia.

Hermits, writers and philosophers who sought solitude in the woods may have been on a more medicinal path than we've given them credit for. “Silence is the universal refuge, the sequel to all dull discourses and all foolish acts,” wrote Henry David Thoreau, the 19th-century transcendentalist, as he recorded natural sounds with the best microphone he had available: a pen.

Whenever I come back from an assignment documenting a quiet corner of the earth, I often notice how much clearer my

BYLINES

Photographer and writer **Pete McBride** has traveled to over 75 countries in the last 20 years.

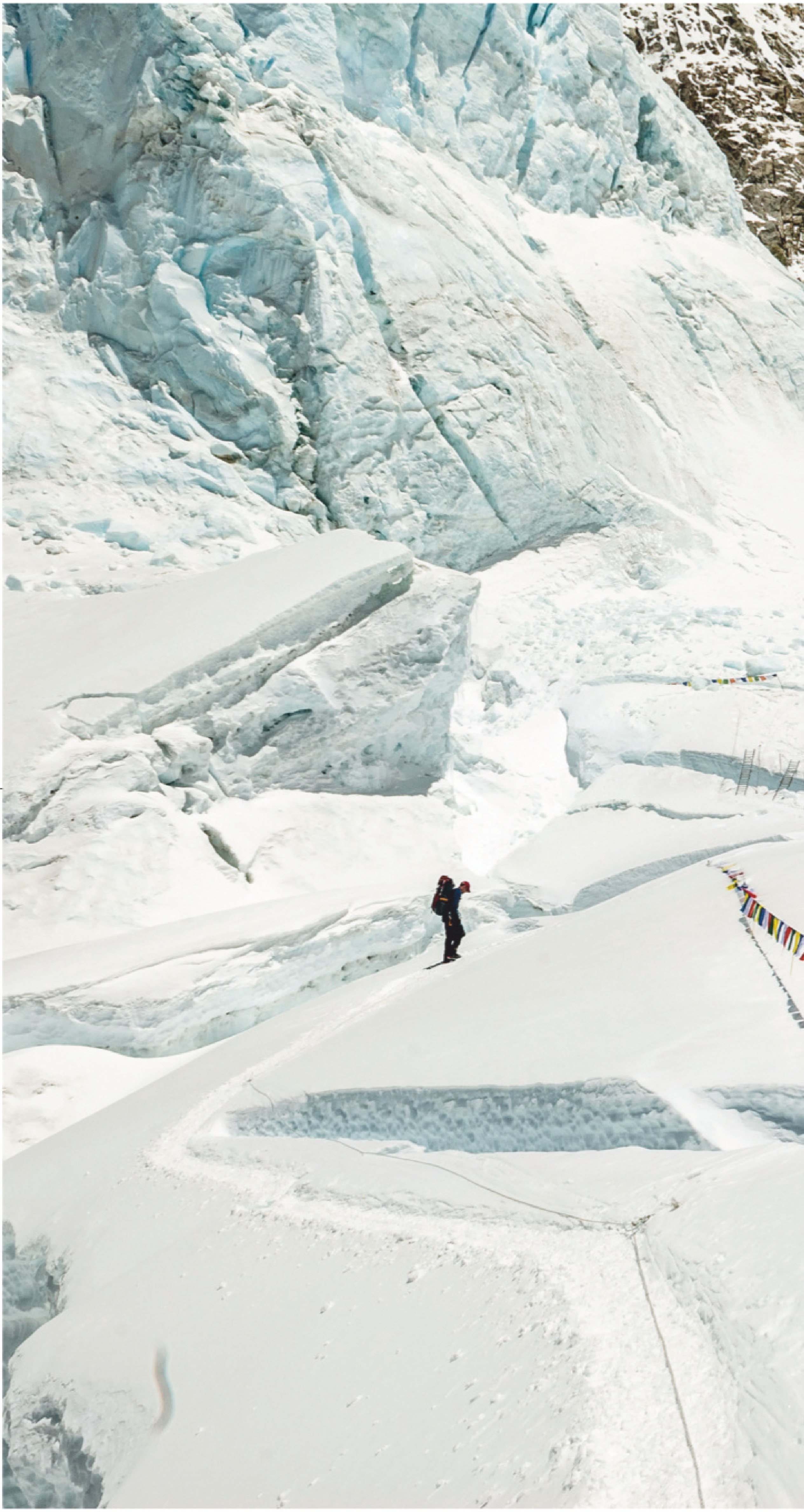
SEE MORE *of McBride's photographs of the quietest places on earth at* ***Smithsonianmag.com/silence***

dull discourses and foolish acts.”

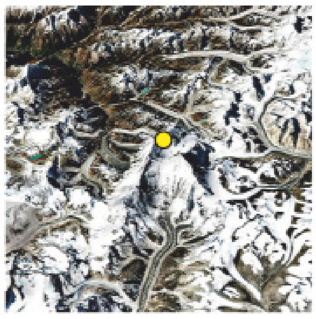
mind feels. The quandaries of life seem simpler, my attention a tad sharper. Even after I reacclimate to the higher decibels of modernity, it feels as if the medicine of silence has eased my mental noise.

This became ever more noticeable during the early months of the Covid-19 pandemic when there were significant drops in tourism and travel, and industrial lockdowns. While many commented on the hushed tones of neighborhoods and the increased awareness of bird sounds again, a report in the journal *Science* reported that the lockdown was “the longest and most coherent global seismic noise reduction in recorded history.”

The images on these pages are some of my visual meditations on the sounds and silences of nature from throughout the years. They are the backdrop to the Khumbu lullaby of Mount Everest’s glaciers moving underfoot, the distant rumble of an elephant. They document the deep stillness in the basement of the Grand Canyon or the thin-air emptiness of the Altiplano’s ancient lakebed of the Salar de Uyuni. I hope these photos can serve as reminders of what the natural world has to tell us—if we listen. ◆



Valley of Silence, Khumbu Icefall, Mount Everest, Nepal
On the south side of Mount Everest, sherpas build a route each climbing season. These men—known locally as the Khumbu icefall doctors—say that in order to create the safest passage, they listen to the ice creak, whine and moan. At the top of the icefall, between Camps 1 and 2, is an area known as the Valley of Silence. At nearly 20,000 feet, it’s famous for its tranquility. But the steepness of the slope, and the constant rise and fall of temperatures, make the valley prone to roaring avalanches.



MILES FROM NEAREST:
AIRPORT: **95,** Tribhuvan International Airport
MAJOR ROAD: **41,** China National Highway 318
GAS STATION: **22,** Ambari Indane Gramin Vitrak
GROCERY STORE: **16,** Kiran Shopping Center and Grocery

HATRED IN P

by
Carol Schaeffer

In the German parish where Martin Luther revolutionized Christianity, a vile, 700-year-old sculpture openly denigrates Jewish people. Why is it still there? *A special report*

photographs
by
Jasper Bastian

LAIN SIGHT

Towers of the Stadtkirche rise above Wittenberg, Germany. Much of the church was demolished and replaced in 1522, but the "Judensau" has remained despite controversy.

A window of Stadtkirche looks out on the Schlosskirche, where Martin Luther is buried. Both churches were at the heart of the Protestant Reformation, which emphasized faith over ritual.

A plaque dedicated to Martin Luther inside the Schlosskirche. Over his head is a quotation from Romans: "How beautiful are the feet of those who bring peace."

IT TAKES LESS THAN *TEN MINUTES TO WALK THE LENGTH OF THE COBBLESTONE STREET OF JUDENSTRASSE ("JEW STREET") IN THE SLEEPY EAST GERMAN TOWN OF LUTHERSTADT WITTENBERG.*

On the street's western end stands the Wittenberg Schlosskirche, or Castle Church, where, according to legend, Martin Luther nailed his 95 theses to the door on October 31, 1517. Nearby is an enormous 360-degree panorama installation by a Leipzig artist celebrating Luther for democratizing the church. A few blocks to the east, behind the old market square, is the Stadtkirche, also known as the Wittenberg Town Church of St. Mary's. It was here that Luther delivered the majority of his sermons, and it's also the site of the first celebration of Mass in German instead of Latin. Wittenberg in general—and the Stadtkirche in particular—is considered the heart of the Protestant Reformation.

Around the back of the Stadtkirche, in a carved sandstone sculpture set into the facade, a rabbi lifts the tail of a pig to look for his Talmud. As he stares, other Jews gather around the belly of the sow to suckle. Above this scene is written in flowery script: "Rabini Schem HaMphoras," a mangled inscription intended to mock the Hebrew phrase for the holiest name of God.

The sandstone sculpture is a once-common form of medieval iconography called a "Judensau," or "Jew's pig." Its existence predates the Nazi period by nearly 700 years. Sculptures of Jews and pigs started appearing in architecture in the 1300s, and the printing press carried on the motif in everything from books to playing cards well into the modern period. Today, more than 20 Judensau sculptures are still incorporated into German churches and cathedrals, with a few others in neighboring countries. At least one Judensau—on the wall of a medieval apothecary in Bavaria—was taken down for its offensive nature, but its removal in 1945 is thought to have been ordered by an American soldier. The Judensau in Wittenberg is one of the best preserved—and one of the most visible. The church is a Unesco World Heritage site.

Over the past few years, the debate over this anti-Jewish sculpture has become newly urgent. Far-right

Michael Düllmann, at home in Bonn, leads the fight against Wittenberg's Judensau sculpture, which he calls a "shameful assault on the Jews."

CREDIT TK HERE

nationalism has been on the rise throughout the country, but especially in Saxony-Anhalt, the state where Wittenberg is located. In August 2018, after Iraqi and Syrian asylum seekers were arrested for stabbing a German man, thousands of neo-Nazis from around the country descended on the Saxony-Anhalt city of Chemnitz and rioted for a week. In one attack, a Jewish restaurant owner said dozens of assailants threw rocks, bottles and a metal pipe at his business and shouted, "Get out of Germany, you *Judensau*!"

In 2016, the last time Saxony-Anhalt held an election, the far-right ultra-nationalist party Alternative für Deutschland (AfD) debuted at 24.2 percent of the vote. In September 2019, when the neighboring state of Saxony held its most recent election, the AfD received 27.5 percent. The following month, in October 2019, a far-right gunman attempted to attack a synagogue in the town of Halle, about an hour southwest of Wittenberg. His shots killed two people and wounded two others.

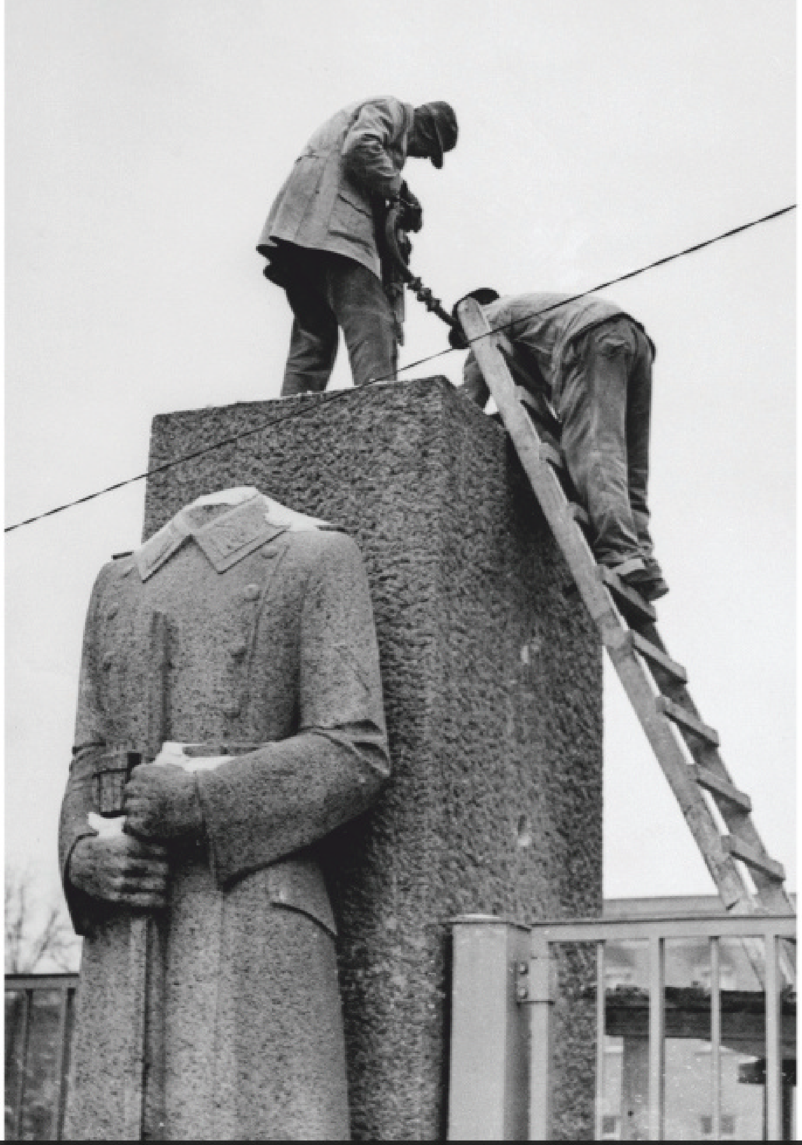
At the same time, Germany's process of atonement for its war crimes is widely recognized. After World War II, the country paid nearly $90 billion in reparations, mostly to Jewish victims. Monuments and memorials in major cities pay tribute to the Jewish dead. Along with the larger memorials and concentration camp sites, there are *stolpersteine* in 500 German towns and cities, including on nearly every street corner in Berlin—small brass plaques bearing Jewish names, set in the ground outside the homes from which the residents were taken.

These acknowledgments began with an Allied-led program called *Entnazifizierung*, or de-Nazification. It started when Americans captured Nuremberg in 1945 and blew up the giant swastika overlooking Hitler's parade grounds. Street signs bearing the Nazi names were removed. War criminals were tried and convicted. Konrad Adenauer, the first chancellor of West Germany, abandoned the official de-Nazification program, but the generation of Germans who came of age after the war earnestly resumed the task. As recently as a few months ago, a 93-year-old former officer at Stutthof concentration camp was tried and found guilty of 5,230 counts of accessory to murder.

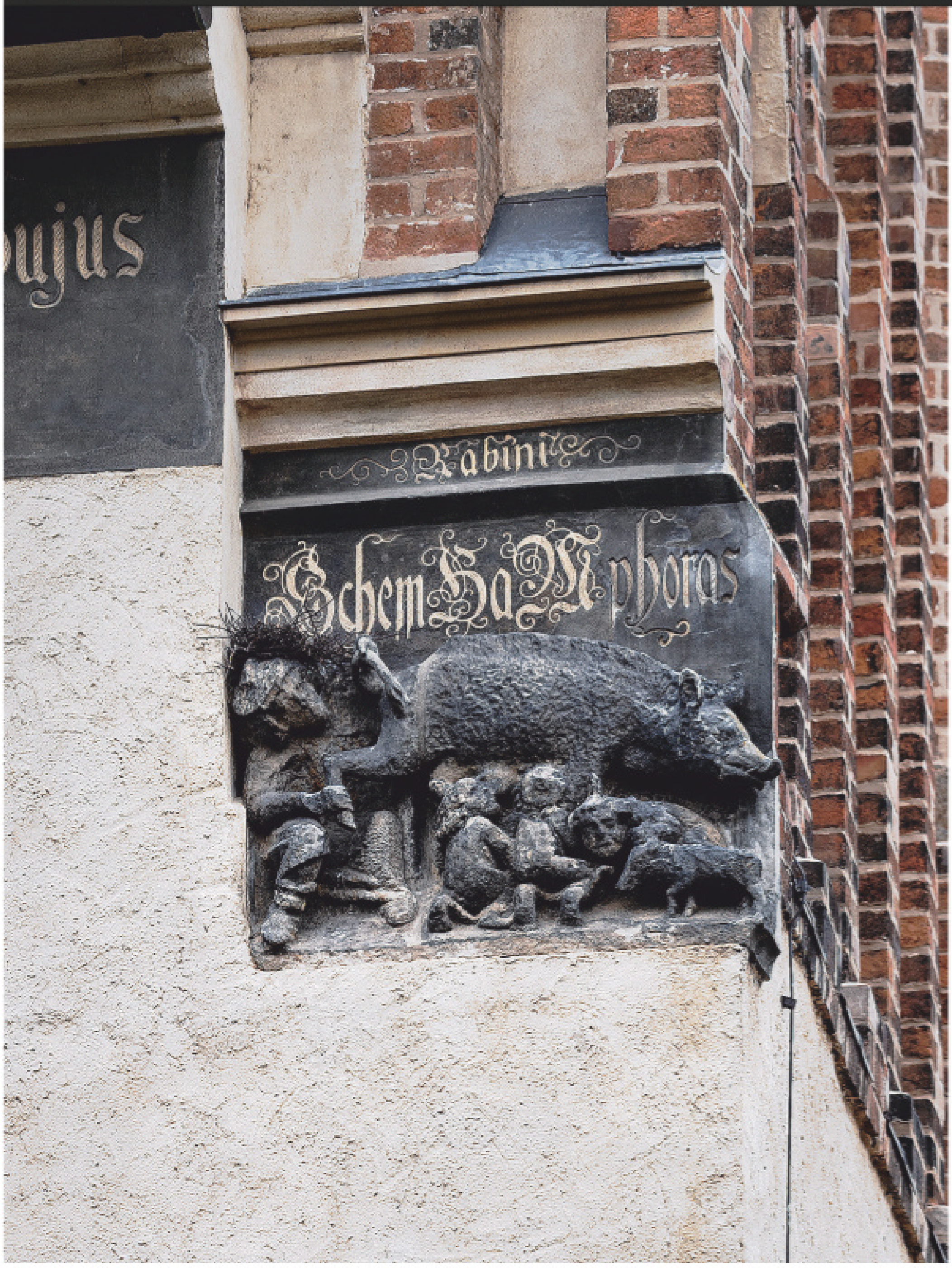
Today, raising one's arm in a Nazi salute is illegal in Germany. So is calling someone a *Judensau*. Yet the Judensau sculptures remain. For decades there have been petitions and calls for their removal, but none has succeeded. Michael Dietrich Düllmann, a 76-year-old pensioner, is hoping to fix that.

* * *

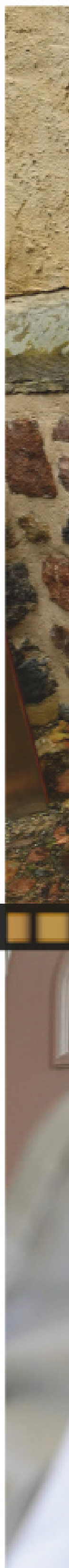
IN MANY WAYS, Düllmann hasn't changed much since the night in 1968 when he entered a West German church with an ax, locked himself inside

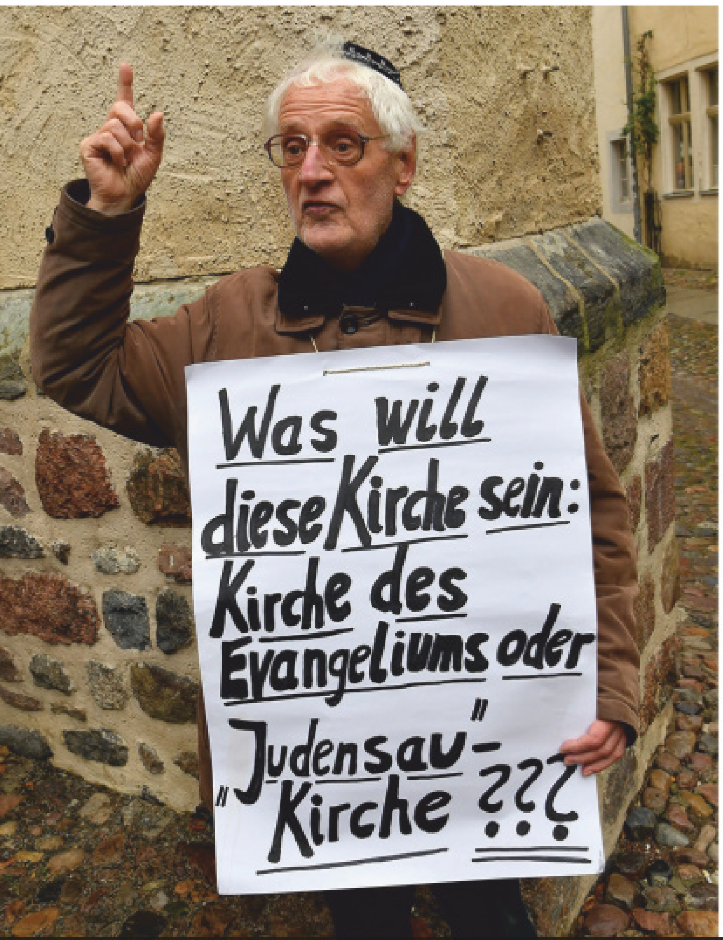


Shown here shortly after World War II with Allied workers, a statue of a Nazi soldier that once stood in Berlin. The statue was destroyed as part of the nation's official de-Nazification program.



The Judensau sculpture on the wall of the Wittenberg church. "Rabini," a nonsense word, was intended to further mock the rabbi shown peering at the pig's anus.





In 2017 Düllman protested as the Stadtkirche marked the 500th anniversary of the Reformation. "What does this Church want to be," his sign asks. "Gospel Church or Jewish Pig Church???"

Two nuns were among the onlookers who showed up at the courtroom in Naumburg to watch Düllmann argue this past January for the Judensau's removal.

and chopped up four plaques dedicated to German World War I soldiers. He left behind a pacifist message, painted in red: "My house should be for prayer for all, but you made it a hall of fame for your crimes."

Today, Düllmann is lithe and spritely and eager to talk. A story about his childhood leads to an impassioned account of Germany after World War II. "Shame!" he says. Shame on the church, on those who defend the Judensau. Above all shame on the way Germany has handled its history with the Jewish people.

He lives in a one-bedroom apartment in a large concrete building on the outskirts of Bonn. He has no TV or computer. "My world is the world of literature, not the world of the internet," he tells me before reciting "Death Fugue," a poem by Holocaust survivor Paul Celan. Menorahs line his shelves, and in a far corner, a dresser is set up for his weekly Shabbat celebration.

Born to a Protestant family in 1943 in the Eastern German town of Halberstadt, Düllmann was the son of a Nazi soldier who was imprisoned by the Russian Army on the Eastern Front. His father did not return to his family after his release, settling instead in the West, which was divided from East Germany in 1949. His mother's tuberculosis and subsequent stay in a sanatorium delayed the family's move to the West until 1953. But his parents never reunited, and he spent much of his childhood with a foster family.

He learned to read from a thick family Bible printed in Gothic script. He says this sparked his early interest in theology and religion. But as a teenager he did poorly in school and rebelled. In 1959, he went to live with his mother near the West German town of Wolfenbüttel and managed to complete high school. He began to learn about Hitler, National Socialism, the Holocaust. He confronted his mother, who admitted she voted for Hitler in 1933, but he never had the opportunity to confront his father, who died in 1966.

By that time, Düllmann was enrolled at the University of Göttingen. As a theological student, he was exempt from service in the military, but in 1967 he nevertheless chose a community service alternative and worked as a caretaker in a nursing home for 18 months. In 1971, he saw an advertisement by a Swiss student group looking for volunteers to travel to Israel to work on a kibbutz. He decided to sign up, and dropped out of the university.

Such a period of discovery is a typical story for members of what Germans call the '68 generation. Children of former Nazis confronted the sins of their parents, becoming peace activists in solidarity with the civil rights and antiwar movements in the United States, France, Czechoslovakia and elsewhere. "So many of our parents' generation did not want to speak about the Nazi period," he says.

On the kibbutz, Düllmann did all manner of menial labor, but for him it felt like paradise. He was meant to stay three months but remained four years, living and working at four different kibbutzim. At one of them, he met Gina, a German Jew who had grown up in Brazil after her family fled Hitler's rise in the 1930s. He says his decision to convert to Judaism came to him on a walk. "The nature was blooming, everything was so beautiful," he said. He was in love.

He wanted to convert in Israel, but the process was long there, and he was feeling pressured to become a West Bank settler. Instead, he returned to Germany in 1975 to convert to Judaism under the auspices of a rabbi who was a Holocaust survivor, and Gina came with him to get married. The marriage didn't last, but he and Gina remain close.

He began to study politics, but ended his studies again, this time because he had a young family to support. As he worked a number of factory jobs, he often participated in demonstrations against nuclear power, arms sales and environmental degradation. In 1987, he campaigned against the building of a hotel on the site of a synagogue in Bonn that had been destroyed on Kristallnacht, living on the site

BYLINES

Carol Schaeffer, a freelance journalist, was a 2019-20 Fulbright scholar in Germany.

Photographer **Jasper Bastian** is based in Dortmund, Germany, and this is his first assignment for *Smithsonian*.

CLOCKWISE FROM TOP LEFT: BETTMANN / GETTY IMAGES; JOHM MACDOUGALL / AFP VIA GETTY IMAGES; PETER ENDIG / PICTURE ALLIANCE VIA GETTY IMAGES; JASPER BASTIAN

for several months and going on a hunger strike.

In 1990, he says, police knocked on his door and asked if he was ready to pay fines relating to his many previous arrests at demonstrations throughout the ’80s. He refused. “I did not want to criminalize the peace movement by paying these fines,” he explained. He was then imprisoned and conducted a 64-day hunger strike while in jail. Doctors brought in were horrified at his deteriorating health. After his release, he began training to become a geriatric care nurse, a job he held for 18 years until his retirement in 2009.

In 2017, while Düllmann was in Wittenberg rallying for the Judensau sculpture to be taken down, a group of nuns from Leipzig approached him and asked if he would consider taking the matter to court. He took up the charge wholeheartedly. When it came to fighting the church, he quickly realized, a lawsuit was a subtler tool than an ax.

In Germany, legal costs must be paid upfront and are recuperated only in the event of a victory. Düllmann has paid more than 50 percent of the legal costs himself, taking them out of his pension of €1,150 per month. The rest has been donated by supporters of his cause.

His legal case hangs on defamation laws in Germany. Düllmann argues that the Judensau sculpture should be removed because it defames and offends the Jewish community of Germany. But for Düllmann, the fight is about much more than a single defamatory image. It is a fight for the heart of German culture, of which Luther is a foundational part. “All German culture was poisoned by him with hatred of Jews and anti-Semitism,” he says, pointing out that Luther played an important role in the ideology of the Third Reich.

“Luther was once a hero to me,” he says, “and is now my opponent.”

* * *

THAT MARTIN LUTHER hated Jews is not much of a historical question. He was more sympathetic in his early years, lamenting that the church “dealt with the Jews as if they were dogs rather than human beings.” But after years of trying and failing to convert them to Christianity, he wrote several lengthy tirades against the Jewish people. In one major treatise, “On the Jews and Their Lies,” he called upon Christians to burn Jewish homes, schools and synagogues and destroy Jewish prayer books.

To modern ears, that might sound like a dead ringer for the Kristallnacht pogroms of 1938. Luther’s defenders argue that his prescription was “anti-Jewish” rather than “anti-Semitic,” an attack on the religion rather than the ethnic group that practiced it. They insist that anti-Semitism, as Hitler preached it, relied on 19th-century race theories and therefore has nothing to do with Luther’s religious critique.

That distinction is largely artificial, says Thomas Kaufmann, a Protestant theology professor at the University of Göttingen and author of the 2014 book *Luther’s Jews*. Even though medieval attitudes preceded modern biological theories about race, he sees them as “proto-racist anti-Semitism.”

“By this I mean, for example, statements made by Luther like those that say, baptized or not baptized, Jew remains Jew,” Kaufmann told me. “This is heresy, because from a theological standpoint, the only difference between a Christian and a Jew or a non-Christian is baptism. And with a statement like this, Luther makes clear that a Jew can never be a Christian simply because he was born a Jew.”

Historians estimate that the Wittenberg Judensau was installed two centuries before Luther, around 1305, though the exact date is disputed. The motif appeared in ecclesiastic architecture from the 13th to the 15th centuries. A church was the most prominent architectural feature of many medieval towns, so it acted not only as a meeting place but as a billboard

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^ Johannes Block, the religious leader of the Wittenberg Stadtkirche, has said the church today is “not happy about the difficult inheritance” of the Judensau.

"Monuments are visible values."

for communal values. Kaufmann suggests that a Judensau was a warning to Jews—a clear sign that they were not welcome.

Luther himself praised the sculpture on his home church in a 1543 text called "Of the Unknowable Name and the Generations of Christ." Throughout the tract, he denounced Jewish beliefs about a hidden, powerful name for God—a kabbalistic teaching that Jews refer to as the "Shem HaMephorash" (the explicit name). "Here in Wittenberg, in our parish church," Luther wrote, "there is a sow carved into the stone under which lie young pigs and Jews who are sucking; behind the sow stands a rabbi who is lifting up the right leg of the sow, raises behind the sow, bows down and looks with great effort into the Talmud under the sow, as if he wanted to read and see something most difficult and exceptional; no doubt they gained their Schem Hamphoras from that place." The inscription "Rabini Schem HaMphoras" was installed above the sculpture 27 years later, in Luther's honor.

No one I spoke to denied that the Judensau represents centuries of violent oppression. So why does it remain when Nazi artifacts, which represented only 12 years of persecution, were so thoroughly erased from public places?

◆

ENGLISH HAS TWO WORDS—"monument" and "memorial"—to describe a structure meant to remind viewers of a person or an event. The two are used so interchangeably that it's hard to describe the difference. But there's no English word to describe an installation that apologizes for the past—perhaps because, until recently, America and Britain tended not to build them. The memorials for Abraham Lincoln and Martin Luther King Jr. in Washington, D.C. both recognize shameful episodes in American history—slavery and segregation—but only in the course of celebrating great men. One reason Confederate monuments are so controversial is that Americans can't agree on whether they glorify the past or simply represent it.

In Germany, there's less ambiguity around that question. German has several words for memorials. An *Ehrenmal* is a monument built to honor its subject (*ehren* means "to honor"). A *Denkmal* commemorates an event, like a battle, while a *Gedenkstätte* is a place of reflection and contemplation. Both of those words contain the root *denken*, "to think."

Some monuments are also called *Mahnmals*—warning signs or admonitions never to repeat a horrendous part of history. The Dachau concentration camp is one of many sites throughout Germany that now stands in this spirit. Tour guides lead visitors around the grounds, past the mass graves, and under the gate that still bears the infamous slogan *Arbeit macht frei*—"Work sets you free." The preservation of this camp, and other significant Nazi sites, is championed by those who want the world to remember the crimes that took place there.

The Jewish American author Susan Neiman praised Germany's approach to these sites in her 2019 book *Learning From the Germans*. But she takes issue with the Wittenberg sculpture. "Monuments are visible values," she told me. "And the question is what kind of values have they retained? Not whose feelings are they hurting, rather what kind of values are they showing in this very important historical church?"

In the 1980s, the Wittenberg church tried to solve its Judensau conundrum by turning the site into a *Mahnmal*. The church went through a renovation in 1983, in honor of Martin Luther's 500th birthday. After five years of deliberation, those in charge of the project decided that the Judensau would remain—but they would add a memorial to the Jewish people. Unveiled in 1988, it is now installed on the ground in bronze. Two crossing lines are surrounded by text that reads: "The proper name of God, the maligned Schem-ha-mphoras, was held holy by the Jews long before the Christians. Six million Jews died under the sign of a cross." Alongside those German words is a Hebrew quotation, the beginning of Psalm 130: "Out of the depths I cry unto Thee, O Lord."

The whole installation lies flat on the ground, but it's designed to look as though it's being pushed upward by something bubbling up from underneath. Friedrich Schorlemmer, the former pastor of the Schlosskirche down the street, explains the significance of the image on the church's website. "You can't cover up injustice," he writes. "The memory springs up from the rectangular slabs."

Schorlemmer's own biography parallels Düllmann's. Born in 1944, one year after Düllmann, to a Nazi doctor on the Eastern Front, Schorlemmer was also intensely active in the peace movements of the '60s and '70s. He became a dissident pastor and a celebrated figurehead in movements for human rights, pacifism and the environment. Under the East German regime, his outspokenness put him under close observation by the Stasi, the infamous East German secret police. Both Schorlemmer and Düllmann have spent their lives wrestling with the past, horrified at their parents' generation.

But they've ended up on opposite sides of the Judensau debate. Schorlemmer was among those who fought for the installation of the memorial. He considers it a hard-won show of justice and remembrance for German Jews. The current pastor at the Wittenberg Stadtkirche church itself, Johannes Block, feels the same way: "It is an admittedly paradoxical way of achieving a good goal with an evil object, namely dealing with history." Objects placed in a museum "fade into oblivion," as he put it. The church made the decision not to hide its own shameful legacy but rather to accept accountability.

When the *Jüdische Allgemeine*, a German Jewish paper, asked Block in February about the original anti-Semitic sculpture, he replied, "I feel shame, anger, and horror when I look at it. But it's about the correct handling of this terrible legacy." In recent years, the church has gone a step further, posting an information panel about Judensau sculptures and their role in history. In its three paragraphs of text, the new sign acknowledges the persecution of Jews in the area and briefly mentions Martin Luther's anti-Semitic writings.

But when I spoke to Block about the original sculpture, his approach seemed circuitous in its own way. He corrected me several times when I called it a "Judensau." That term, he insisted, only came about in the 1920s as a way to defame Jews and therefore "has nothing to do with the middle ages." He preferred the term "Wittenberg Sow." When I asked him about what should be done with similar sculptures still standing throughout Europe, he said he would recommend that the others add the kind of context the Wittenberg church has added. Still, as the leader of the most important historic church in Protestantism, he hasn't vocally campaigned for such an undertaking.

When I asked why a swastika should be removed or placed in a museum and a medieval Judensau should not, he mentioned a series of Nazi-era church bells that have been the subject of controversy and court battles around Germany. In the northern Germany town of Schweringen, after a parish council decided to keep using their bell in 2018, activists sneaked in just before Easter and sanded the swastikas and the Nazi inscription off the metal surface. They left behind a note calling their act a "spring cleaning" to remove "the filth of the National Socialists."

To Block's mind, the swastika-imprinted bell wasn't an integral part of history like the Wittenberg church. "I would make a distinction between the time of racist anti-Semitism and a dictator," he said, "and an anti-Jewish symbol of the middle ages."

* * *

CAN A MEDIEVAL RELIEF still be considered a criminal insult today? This is the question the courts have been deliberating in Düllmann's case. In Germany, defamation on the basis of ethnicity or race is a serious offense. Many of the things Germany would find prosecutable (Holocaust denial, for example) would be permitted under the United States' exceptionally broad definition of free speech. Germany believes that allowing hate speech endangers the country's democracy and freedom—a lesson enshrined in its constitution after the Nazi period.

Düllmann had his first opportunity to make his case before a German court in May 2018. He argued that the sculpture should be removed from the church facade. He even suggested that Wittenberg establish a permanent museum to address Christian anti-Semitism. The local court rejected his plea, declaring that the Judensau should remain as a "witness of its times." Some high-ranking members of the German Lutheran Church disagreed with the decision. Irmgard Schwaetzer, the chair of the church's nationwide synod, told a reporter that she found Düllmann's arguments persuasive. The sculpture, she said, "expresses pure hatred of Jews," and she urged her fellow church members to consider "the feelings that this place awakens in our Jewish brothers and sisters."

In January 2020, Düllmann made his case again at the appeals court for the state of Saxony-Anhalt in Naumburg. Once again, a panel of judges declined to order the sculpture's removal. Their reasoning was complex. First, they pointed out, the church wasn't disputing that the sculpture was offensive. "The parties agree that this relief—at the time of its creation and even in the 16th century, when it was supplemented by the inscription 'Schem HaMphoras'—served to slander Jews." The issue, the judges said, was not the intent behind the original sculpture but the way its message comes across today.

In the court's view, the memorial plaque added to the church grounds in the 1980s, as well as the signage about Martin Luther and the history of medieval anti-Semitism, made all the difference. "You can neutralize the original intent with commentary on the historical context," the judges wrote. "This is the case with the Wittenberg sculpture."

The judges summarized Düllmann's argument in one concise sentence: "An insult remains an insult even if you add commentary around it." By that logic, they reasoned, every museum exhibit featuring anti-Semitic relics would have to be taken down. Likewise, they continued, *Arbeit macht frei*, the signage at the Dachau concentration camp, could be seen as comparable to the Judensau sculpture. And yet, because of the new context surrounding it at the restored concentration camp, no one was arguing that this hideous Nazi slogan was offensive today.

The difference, the court acknowledged, was that this particular Judensau could be seen as especially offensive because of its association with Martin Luther himself—the great religious founder glorified in the church and all over Wittenberg. The Dachau site had been preserved only to warn visitors about the crimes of the past, whereas the church was still being used for religious services. But the *Mahnmal* countered that seeming endorsement, in the judges' view. There was no way a visitor could assume that the modern-day Lutheran church still held the views expressed in the Judensau.

Of course, there's always the danger that neo-Nazis could look at the sculpture, ignore the historical context and draw direct inspiration from the debasing image of Jews suckling at a sow's teats. But that reaction couldn't be helped, the court concluded, saying the law "does not

›
The memorial to persecuted Jews on the ground outside the Stadtkirche. In keeping with Jewish customs for graves and memorials, visitors have placed stones on top.

The pouch holding Düllmann's tallit, or prayer shawl. Long before converting to Judaism, he loved Old Testament stories: "It's hard to explain what moves you."

“Our children have been betrayed.”

aim to prevent rioting in the vicinity of the church, or a positive interpretation of the sculpture by neo-Nazis.”

Düllmann and his lawyers plan on continuing their fight. Their next stop is Germany’s equivalent of the Supreme Court—the Federal Constitutional Court in Karlsruhe, a city in southwest Germany. If that fails, Düllmann has one more option: the European Court of Human Rights, based in Strasbourg, France. “Those will be European judges,” he told me. “Maybe they’ll be more impartial.”

* * *

IN MARCH 2018, the AfD issued a statement about the Wittenberg Judensau. Anti-Semitism was no longer a German problem, the ultra-nationalist party asserted. Muslim immigrants were the ones bringing the specter of Jew-hatred back to German soil—and Germans were being unfairly expected to pay for that resurgence by removing a medieval relief that the AfD called “priceless” and “irreplaceable.”

“It has over 700 years of history in the city center,” the statement lamented of the Wittenberg sculpture. “Now, if it were up to some theologians, educationalists, and other world observers, it would be put behind glass or, better yet, completely destroyed—700 years of history.”

For those who hold this view, memorials and signs like the ones outside the Wittenberg church come across as denigrating rather than ameliorating. The founding AfD politician Björn Höcke made international headlines in 2017 when he called on Germans to take a “180-degree turn” in their approach to history. Höcke is a state assembly member in Thuringia, a region just south of Saxony-Anhalt where the Brothers Grimm gathered inspiration for their fairy tales and tour guides dress in medieval costumes. At a rally in Dresden, Höcke lamented that “German history is handled as rotten and made to look ridiculous.” He expressed scorn for the Holocaust memorial in Berlin, complaining that Germans were the only people in the world who would erect “a monument of shame” in their nation’s capital. In response, the crowd shouted over and over, “Deutschland! Deutschland!”

In the AfD stronghold of Saxony, another church is struggling with the best way to handle its anti-Semitic past. The parish, in a town called Calbe, had removed for restoration a sculpture of a Jew suckling at a pig’s teat, but then decided to retire it altogether. The issue went to court this past June, where judges ordered them to reinstall the sculpture in its original spot. The parish complied, but instead of adding apologetic memorials or signs, the church has opted to keep the sculpture covered for the foreseeable future. As the mayor of Calbe told the *Jewish Telegraph Agency,* “I don’t think anyone really wanted to have to see this chimera again.”

There’s a term in the German language—*Vergangenheitsaufarbeitung*—which roughly translates to “dealing with the past.” One chapter of that past came to a close in 1945, with the fall of the Third Reich. Another ended in 1989, when the Berlin Wall came down and statues of Vladimir Lenin were removed from public spaces in the east. But the towering churches that still stand as architectural gems and religious inspirations raise different kinds of questions.

When the judges delivered their ruling on the Wittenberg Judensau in February, an older man with a white beard sitting in the back of the courtroom stood up and left the room crying. I spoke to him afterward.

Winfried Böhm, a 68-year-old pensioner, said he had spent 22 years serving on the council of his local Lutheran church. He had driven six hours from his home near Lake Constance on the Swiss border to attend this trial. “Our children have been betrayed,” he said through tears. “We say ‘never again,’ but it is here all around us. It is our greatest shame.” ◆

At Anzio, the emperor's birthplace, bathers enjoy the Mediterranean shore near Nero's Villa Imperiale. The ruins are now situated in an archaeological park.

Nero

CONTINUED FROM PAGE 33

heat for this. It was considered insufficiently Roman of him.

The Christians Nero executed for setting the Great Fire were mostly burned in his own gardens, which conforms to the standard Roman legal practice of fitting the punishment to the crime. And that appears to have been the end of it, at least at the time. The public was appeased and the Christians of Rome stayed silent. "Persecution isn't mentioned at all in the early Christian sources," says Drinkwater. "That idea comes up only much later, in the third century, and is fully accepted only in the fourth century."

When the idea finally surfaces in Christian polemics, it appears with a vengeance. The Book of Revelation was interpreted to cast Nero as the Anti-Christ: The numerical equivalents of the Hebrew letters that spell "Neron Caesar" come out to 666—the "number of the beast." Do with that what you will. Lactantius, a tutor of the Christian Emperor Constantine's son, wrote *On the Deaths of the Persecutors* in the early fourth century. He has this to say: "Nero, being the abominable and criminal tyrant that he was, rushed into trying to overturn the heavenly temple and abolish righteousness, and, the first persecutor of the servants of God, he nailed Peter to the cross and killed Paul. For this he did not go unpunished."

Never mind that Nero has an alibi for Peter's death: There's no evidence Peter was ever in Rome. Paul was there, from A.D. 60 to 62, and he may even have been killed there, but that was well before the so-called "Neronian persecution." But none of that matters much anymore. Early Christians and the Flavians set their stamp on the written record early, and they held a grudge.

Nero's increasingly beset final years were marked by a few things he should have done and one big thing he shouldn't have done. Until the latter part of his reign, Nero confined his crooning mostly to a small audience of invited guests. As time wore on, however, Nero grew bolder. His living room no longer provided a big enough stage. He had always craved applause. He was addicted to showbiz.

Early in the year A.D. 64, Nero went to Naples, a city he loved for its Greek roots and theatrical culture, and performed in public for the first time. He sang and accompanied himself on the cithara in a kind of Bob Dylanesque, singer-songwriter one-man show. The crowd went wild, and Nero came away exhilarated and wanting more. He repeated the performance, this time in Rome itself.

Given all the horrendous things Nero was accused of doing, it's bizarre that a little musical comedy ranked so high on his list of crimes. And yet that is the way the Roman upper classes saw things. In A.D. 65, Roman senator Gaius Calpurnius Piso organized a ham-fisted plot to kill Nero. Among the conspirators' chief complaints were Nero's acting and singing in public. The plot was easily undone, but before he went to his death, one of the conspirators, a Praetorian guard, Subrius Flavus, told Nero to his face why his "devotion turned to hatred." Nero was a matricide and an incendiary, said Flavus, but he was also . . . an actor.

Much about ancient Rome seems recognizable to us. That does not. "Entertainers were low status, and in a society where status

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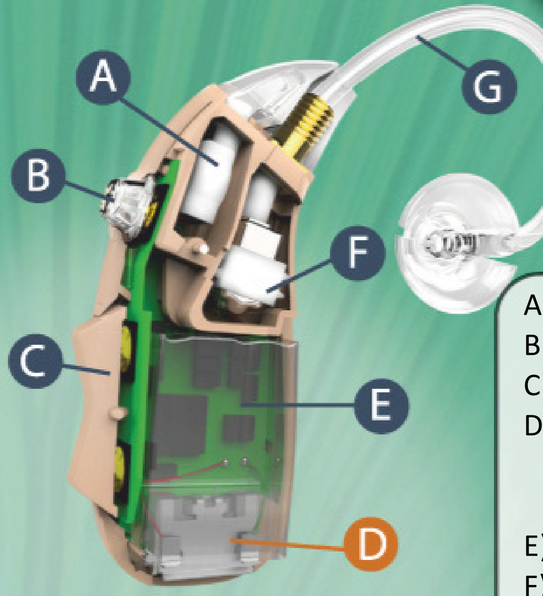

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was very important, for a high-status person to project themselves as low status was not acceptable," says Drinkwater. "It shook the foundations of society."

Nonetheless, near the end of his reign Nero put together the ultimate road-show. One of the things expected of a proper Roman emperor was official travel to the provinces. Nero never liked to travel and for years refused to budge. When he finally agreed to leave Italy, he arranged to play the festival circuit in subjugated Greece (he had asked the Greeks to squeeze all their major festivals into one year, and, not surprisingly, they obliged). Shotter, the biographer, tells us Nero won every contest he entered, along with a few he did not. When he returned to Rome in A.D. 67, he carried back 1,808 first prizes. So overcome was Nero by this outpouring of love that he liberated Greece (Vespasian promptly unliberated it). Roman public opinion did not react badly to Nero's foreign tour. Apparently, what happens in Greece stays in Greece.

Nero's end crept up on him slowly and from afar. There was no immediate crisis of state that required his ouster. Some historians argue that Nero had depleted Rome's treasury and that the empire was desperately short of cash. Drinkwater disagrees. The empire's frontiers were mostly quiet: An uprising in Britain had been put down. Titus, the future emperor, was in the process of extinguishing a rebellion in Judaea. The crisis that did arise should have been merely a tempest in a teapot. A firmer, less diffident emperor than Nero might have flicked it away. Nero watched as it slowly gathered momentum, and he sat there, paralyzed, as it rolled over him.

Answers from Page 22

■	1 M	2 I	3 F	4 F	■	■	5 I	6 O	7 N	■
8 N	E	P	A	L	■	■	9 T	R	E	10 E
11 A	T	O	N	O	12 F	■	13 A	N	A	L
14 B	A	D	G	E	R	15 C	L	A	R	K
■	■	■	■	■	16 I	N	I	T	S	■
■	■	17 S	18 I	19 L	E	N	C	E	■	■
■	20 H	U	M	A	N	■	■	■	■	■
21 N	O	R	T	H	D	22 A	23 K	24 O	25 T	26 A
27 O	R	E	O	■	28 S	L	A	V	I	C
29 M	A	I	L	■	■	30 A	L	E	V	E
■	31 L	S	D	■	■	32 N	E	R	O	■

In the spring of A.D. 68, a Gallic official, Julius Vindex, rose up not against Rome, he said, "but against Nero." The reasons were vague, the usual grab bag of crimes—matricide, acting, that sort of thing. Vindex could never hope to sit on the throne himself—he was a Romanized Gaul, for one thing—so he enlisted someone who could, a middling Roman patrician named Galba.

"In most popular works, you get the notion that the whole empire was against Nero and the army revolted. That's not true," says Drinkwater. "Clearly what the establishment thought would happen was: Nero would go up there, he'd lead his troops, end of Vindex, end of Galba, wonderful!"

Militarily, Vindex never posed a real threat to Nero or to Rome. Few of the important commanders in Gaul, Germania and the East supported Vindex. But Nero temporized, effectively signing his own death warrant. By the time Vindex was routed at the Battle of Vesontio, the whole empire was somehow in play. "Nero had done nothing. The establishment had seen the future, hadn't they?" says Drinkwater. "It's not the army that turns against him, it's the men in gray suits."

Nero fled Rome for the villa of his friend Phaon, four miles from Rome. Here, on the 8th of June in the year 68, Nero read the news that the Senate had declared him *hostis*—an enemy of the state. Suetonius has him wavering irresolutely before hearing the approach of cavalry and plunging a dagger into his throat.

It is Suetonius, too, who has given us Nero's infamous last words: *qualis artifex pereo*—"what an artist perishes in me!" Historians still debate exactly what Nero meant by this, but it is often taken as a final expression of Nero's self-deluded conceit. As such, it is the kind of operatic finale that richly satisfies all the haters.

But there's a different way of looking at it. Not that he was a great artist, perhaps, but that he was undoubtedly a committed one, and it is the artist, not the half-hearted emperor of Rome, who perishes here. "The one major figure who we certainly know was never allowed a fair trial under Nero was Nero himself," Drinkwater concludes.

Two thousand years later, Nero is finally getting his day in court. ◆

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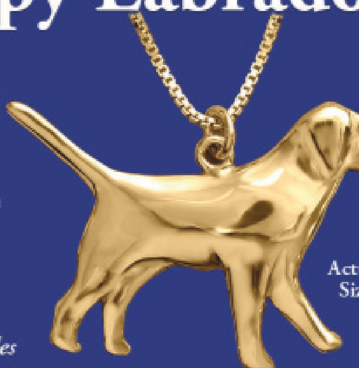

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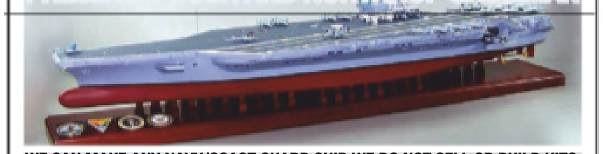

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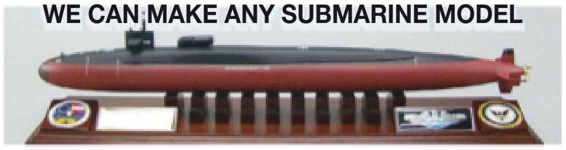

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Lanternfly

CONTINUED FROM PAGE 49

maybe he can sell part of the farm, the acreage across the road, keep the rest so the family doesn't fly apart and move away, maybe keep the e-commerce business going with his kids. Maybe. They'll still sell Pink Heartbreaker redbud and rose of Sharon—but online and sourced from other growers. The children and the grandchildren will have a business but not a farm, and that breaks his heart. He'll take his hand off the plow.

In the Book of Job, God tests a man's faith by taking away everything he has. "He hath destroyed me on every side," Job says, "and I am gone: and mine hope hath he removed like a tree."

But Job's faith does not fail him. He is restored to the world and the world restored to him. Still, science isn't sentiment. Nor is business a parable, nor a mortgage an allegory. This is the state of things.

◆

IT IS A PRETTY PLACE. Redbud and sweetgum, chokecherry and crabapple, hornbeam and plum. Pin oak and yellowwood. Just enough shade to ease the heat. Here in the rows it's quiet even as the breeze rattles the branches. You can hear your own footsteps one to the next to the next. Birdsong. The smell of sweet water and clean soil from the creek. And today that blue sky is a certain kind of blue sky, a kind of make-believe blue, storybook blue, a blue that makes you ache for something without knowing what. Peace, maybe. Wings. Hope. Home. Maybe that's what the Eatons have sold all along, a view up through the trees to a blue sky.

But the forest rolls away to the other side of the valley, over the hills and streams in every direction and into the distance and you can sense them out there. A slow darkness in the trees, whispering and spreading. The living shadow. Lanternfly. Waiting.

Still, Don Eaton rises, prays and walks these rows. One step after another as his world falls away. Caught like every one of us between heaven and earth. "I am just an old tired farmer," he tells me one day. "We're calling it quits."

He put the farm up for sale in June. ◆

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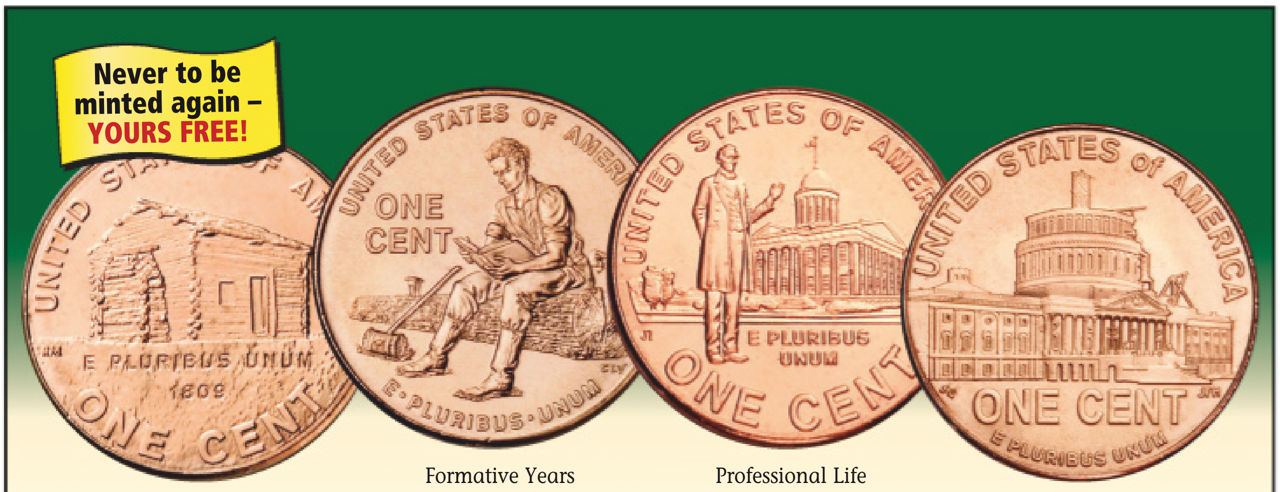

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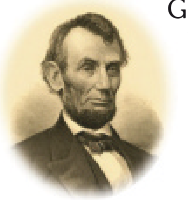

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Q: Are there any American Indian descendants of the members of the Lewis and Clark Corps of Discovery?

Karen Wilson | Helena, Alabama

IN THEIR JOURNALS, the men of the Corps of Discovery alluded to their relations with Indian women. One Nez Perce man named Halahtookit was widely believed to be the son of William Clark, says Dennis Zotigh, a cultural specialist at the Museum of the American Indian. The Corps of Discovery met the Nez Perce tribe in what is now Idaho when the explorers were starving and sick. The Indians took care of them until they were ready to move on. One woman later gave birth to Halahtookit, who went by the nickname Clark. Some 70 years later, after the Nez Perce War of 1877, hundreds of Nez Perce members, including Halahtookit, were removed from their homelands. Halahtookit is buried in a mass grave in Oklahoma.

Submit your queries at Smithsonian-mag.com/ask

Q: Why didn't the 13th Amendment forbid forced labor in prisons?

Barry Ardolf | Milan, Michigan

BECAUSE FORMER slave states had to ratify the 1865 amendment, it was the product of compromise. At the time, plantations and businesses had a practice of "leasing" convicts for free labor. The 13th Amendment allowed this to continue, forbidding slavery "except as a punishment for crime." That exception was applied disproportionately to African Americans, explains Mary Elliott, curator at the National Museum of African American History and Culture. Freed slaves were accused of crimes such as vagrancy and thrown in prison, where they were forced once again to work without pay. Today, prison labor brings in around $1 billion a year. Many prisons pay inmates a small stipend, which can be as little as a few cents an hour. Entirely unpaid prison labor continues in the former slave states of Georgia, Arkansas and Texas.

Q: How do some herbivores maintain their size?

Doug Barnes | Navarre, Florida

THEY HAVE TWO things going for them: access to a lot of plants, and large, specialized digestive tracts. Large mammals like manatees and hippos eat plants for the nutrients they need, but the real challenge is converting those plants into energy. Plant fiber (cellulose) is tough to break down, explains Mike Maslanka, head of nutrition science at the National Zoo. Most herbivores have evolved to host microbes in their digestives tracts that help them break down those fibers and convert them into energy.

Q: Why didn't George Washington sign the Declaration of Independence?

Annette M. Daly | Holland, Missouri

HE WAS BUSY defending New York City against the British. While Washington represented Virginia at the First Continental Congress, by the Second Congress, in 1776, he was already commander in chief of the Continental Army, explains Barbara Clark Smith, curator at the American History Museum. Alexander Hamilton didn't sign the Declaration either—he was also defending New York. By the time the Declaration was signed, dozens of state and local bodies had already declared independence through proclamations and legislative acts. But when Washington received a copy of the newly finalized Declaration, he gathered thousands of soldiers together in Lower Manhattan and had the words read aloud. ◆

*Text by **Natalie Hamilton***

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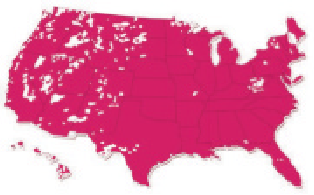

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